



JOINT BASE REAL PROPERTY MASTER PLAN

Joint Base Myer • Henderson Hall

Programmatic Environmental Assessment



March 2013

ATKINS

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JOINT BASE REAL PROPERTY MASTER PLAN

Joint Base Myer • Henderson Hall
*Programmatic
Environmental Assessment*



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**US Army Corps
of Engineers** ®



March 2013

ATKINS



Joint Base Myer Henderson Hall, Arlington, Virginia and Washington, DC

MARCH, 2013

PUBLIC NOTICE OF

FINDING OF NO SIGNIFICANT IMPACT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT FOR IMPLEMENTATION OF A REAL PROPERTY MASTER PLAN AT JOINT BASE MYER HENDERSON HALL

Joint Base Myer-Henderson Hall (JBM-HH) prepared the Programmatic Environmental Assessment (PEA) in accordance with the National Environmental Policy Act (NEPA) 42 *United States Code* (USC) § 4321 to 4370(e), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (CEQ regulations, 40 CFR Parts 1500 – 1508), and *Environmental Analysis of Army Actions* (32 CFR 651). The U.S. Army announced a 30-day public review and comment period on July 26, 2012 in conjunction with the above mentioned document regarding No Significant Impact PEA for the Real Property Master Plan (RPMP) for Joint Base Myer Henderson Hall, including Fort Myer, Arlington, Virginia; Henderson Hall, Arlington, Virginia; Fort McNair, Washington, DC.

1. Description of Proposed Action and Alternatives

Proposed Action. JBM-HH proposes to implement the RPMP at Fort Myer, Fort McNair and Henderson Hall through 2030 to provide JBM-HH with a planning framework, tools, and direction to enable the utilization and development of the land within the installations' boundaries in a manner that allows the continued expansion of JBM-HH. All United States Army installations are required to maintain a RPMP in accordance with AR-210-20 *Real Property Master Planning for Army Installations*. The Department of Defense Instruction (DODI) 4715.3 *Environmental Conservation Program*, and Army Regulation (AR) 200-1, *Environmental Enhancement and Protection*, require development of the PEA. The PEA identifies existing physical, natural and cultural resources and potential impacts that would occur to those resources as a result of the implementation of the RPMP. The PEA further establishes mitigation measures and procedures to offset impacts and ensures compliance with all applicable laws and regulations, while providing for the safety and efficiency of federal and state missions. The Proposed Action is the Preferred Alternative.

Alternatives Considered. An environmental analysis of a No Action Alternative is required by CEQ regulations to serve as a benchmark against which the Proposed Action can be evaluated. JBM-HH analyzed a No Action Alternative that would continue planning and development based on the current 30-year Master Plans for Fort Myer and Fort McNair and the Henderson Hall Development Plan. However, there would be no comprehensive, cohesive, long-term planning and development that would allow for efficient management of natural and cultural resources and facilities operations and maintenance for JBM-HH.

2. Environmental Analysis

Based upon the analysis contained in the PEA, it has been determined that the known and potential impacts of the Proposed Action on the physical, cultural and natural environment would

be minimal for some resources. Impacts to topography, soils, surface water, water quality, vegetation, wildlife, air quality, noise, hazardous materials, solid waste, and utilities are expected as a result of the implementation of the Proposed Action. Projects would be initiated only after environmental review has been completed and the required permits are obtained. Mitigation measures for unavoidable losses of wetlands would be required. Air pollutant emissions from future projects should not be significant and would be below *de minimus levels* for general conformity.

Best Management Practices (BMPs) and adherence to applicable policies and regulations would be implemented for resource protection along with mitigation measures identified in the PEA. Concurrence with the determination that the Proposed Action is not expected to affect the enforceable policies of the Virginia Coastal Zone Management Program was received from the Virginia Department of Environmental Quality. A Programmatic Agreement between JBM-HH, the Advisory Council on Historic Preservation, the DC Historic Preservation Office, the Virginia Department of Historic Resources and other consulting parties will be developed to assist with JBM-HH's responsibility to consider impacts to historic properties and streamline consultation process. A Transportation Management Plan developed in alignment with the RPMP provides recommendations to reduce single-occupancy vehicle use for JBM-HH commuters and improve parking ratios to meet National Capital Planning Commission (NCPC) standards.

Neither the Proposed Action nor the No-Action Alternative creates disproportionately high or adverse human health or environmental effects on children, minority or low-income populations, or communities at or surrounding Fort Myer, Henderson Hall and Fort McNair.

The Army is committed to sustaining and preserving the environment of JBM-HH and in keeping with that commitment. Adherence to applicable policies/regulations and BMPs that would be implemented for resource protection are included within discussions of each respective resource area in the PEA. JBM-HH would employ BMPs and environmental management programs to ensure environmental compliance, stewardship and sustainability throughout the time frame of the RPMP and PEA.

3. Regulations

The Proposed Action would not violate NEPA, its regulations promulgated by the CEQ, *Environmental Analysis of Army Actions*, or any other federal, state, or local environmental regulations.

4. Public Review and Comment

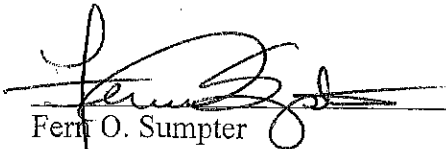
Pursuant to Title 32 CFR Part 651.14(b), the Army must make the PEA and Draft Finding of No Significant Impact (FONSI) available to the public for review and comment for a minimum of 30 days prior to a final decision. The draft PEA and FONSI were made available for a 30-day public comment period beginning July 27, 2012 and ending August 26, 2012. Printed copies of the documents were available for viewing during the applicable 30-day comment period at four local public libraries. Commenters were asked to send comments via email or regular mail.

Comments by the public, federal, state and local government agencies, and other appropriate entities, and stakeholders were fully considered in the drafting of the Final PEA and FONSI.

5. Finding of No Significant Impact

The PEA was prepared pursuant to the Army's NEPA regulation, Title 32 CFR Part 651, and the CEQ regulations for implementing NEPA. Where project-specific conditions require, JBM-HH will conduct additional NEPA analysis and documentation.

Based on analysis contained in the PEA and the Army's intent to follow prescribed regulations, acquire required permits, and implement mitigation measures identified, the Joint Base Commander has determined that the Proposed Action will have no significant direct, indirect, or cumulative adverse impacts on the natural or human environment. Therefore, an Environmental Impact Statement is not needed.


Fern O. Sumpter
Colonel, U.S. Army
Commanding

8 Apr 13
Date

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**FINAL
PROGRAMMATIC ENVIRONMENTAL ASSESSMENT**

REAL PROPERTY MASTER PLAN

**Joint Base Myer-Henderson Hall
Arlington, Virginia and Washington, D.C
March 2013**

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LIST OF ACRONYMS AND ABBREVIATIONS

ACDES	Arlington County Department of Environmental Services
ACHP	Advisory Council on Historic Preservation
ACP	Access Control Point
ADA	Americans With Disabilities Act
AHPA	Archaeological and Historic Preservation Act
ANC	Arlington National Cemetery
AQCR	Air Quality Control Region
AR	Army Regulation
ARPA	Archaeological Resources Protection Act
ARRA	American Recovery and Reinvestment Act
AST	Aboveground Storage Tank
AT/FP	Anti-Terrorism/Force Protection
AWI	Anacostia Waterfront Initiative
BACT	Best Available Control Technology
BMP	Best Management Practice
BRAC	Base Realignment and Closure
BTU	British Thermal Unit
CAA	Clean Air Act
CDC	Child Development Center
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIS	Capital Investment Strategy
CWA	Clean Water Act
CZMP	Coastal Zone Management Program
dB	Decibel(s)
dBA	A-Weighted Decibel(s)
DCHealth	DC Department of Health
DCHPO	DC Historic Preservation Office
DCOP	DC Office of Planning Office
DCPHD	Department of Community Planning, Housing and Development
DC Water	District of Columbia Water and Sewer Authority
DDOE	District Department of the Environment
DDOT	District Department of Transportation
DEM	Directorate of Environmental Management
DES	Department of Emergency Services
DoD	Department of Defense
Dominion	Dominion Virginia Power
DPW	Department of Public Works

EA	Environmental Assessment
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FM	Fort McNair
FM-HH	Fort Myer-Henderson Hall
FMMC	Fort Myer Military Community
FR	Federal Register
ft	Foot or Feet
ft ²	Square Foot or Square Feet
GFA	Gross Floor Area
GSF	Gross Square Feet
HOT	High Occupancy Vehicle Toll
HOV	High Occupancy Vehicle
ICRMP	Integrated Cultural Resources Management Plan
IDG	Installation Design Guide
in.	Inch(es)
IRP	Installation Restoration Program
JBM-HH	Joint Base Myer-Henderson Hall and Fort McNair
kV	Kilovolt(s)
kWh	Kilowatt-Hour(s)
LAER	Lowest Achievable Emission Rate
LEED [®]	Leadership in Energy and Environmental Design
LHSFNA	Labor Workers Health and Safety of North America
LID	Low Impact Development
LRC	Long-Range Component
MARC	Maryland Rail Commuter
MBTA	Migratory Bird Treaty Act
MCX	Marine Corps Exchange
MDW	Military District of Washington
mg/m ³	Milligrams Per Cubic Meter
mgd	Million Gallons per Day
MOA	Memorandum of Agreement
MS4	Municipal Separate Storm Sewer System

msl	Mean Sea Level
MWAQC	Metropolitan Washington Air Quality Committee
MWCOG	Metropolitan Washington Council of Governments
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NCPC	National Capital Planning Commission
NCR	National Capital Region
NEPA	National Environmental Policy Act
NFECW	Naval Facilities Engineering Command–Washington
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NNSR	Nonattainment New Source Review
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
NSR	New Source Review
NVTA	Northern Virginia Transportation Authority
O ₃	Ozone
OSHA	Occupational Safety and Health Administration
PAH	Polyaromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
pCi/L	Pico-Curies Per Liter
PEA	Programmatic Environmental Assessment
PEPCO	Potomac Electric Company
PM	Particulate Matter
ppb	Part(s) Per Billion
ppm	Part(s) Per Million
PSD	Prevention of Significant Deterioration
PVC	Polyvinyl Chloride
PX	Post Exchange
RCRA	Resource Conservation and Recovery Act
RMA	Resource Management Area
ROI	Region of Influence
RPA	Resource Protection Area
RPMP	Real Property Master Plan
SEA	Supplemental Environmental Assessment
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SPCC	Spill Pollution, Control, and Countermeasures
SR	State Route
SRC	Short-Range Component
SWPPP	Stormwater Pollution Prevention Plan

TCLP	Toxicity Characteristic Leaching Procedure
TIP	Transportation Improvement Plan
TMDL	Total Maximum Daily Load
TMP	Transportation Management Plan
TPB	Transportation Planning Board
TSCA	Toxic Substances Control Act
U.S.	United States
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USMC	United States Marine Corps
USMDC	United States Army Military District of Washington
UST	Underground Storage Tank
VDCR	Virginia Department of Conservation and Recreation
VDEQ	Virginia Department of Environmental Quality
VDGIF	Virginia Department of Game and Inland Fisheries
VDOT	Virginia Department of Transportation
VOC	Volatile Organic Compounds
VPDES	Virginia Pollutant Discharge Elimination System
VRE	Virginia Railway Express
WIP	Watershed Implementation Plan
µg/L	Microgram(s) Per Liter
µg/m ³	Microgram(s) Per Cubic Meter

EXECUTIVE SUMMARY

Joint Base Myer-Henderson Hall (JBM-HH) is composed of Fort Myer, Henderson Hall, and Fort McNair. JBM-HH was created from the administrative reorganization of the Fort Myer Military Community (Fort Myer and Fort McNair) and the Marine Corps installation at Henderson Hall as a result of Base Area Realignment and Closure (BRAC) 2005 recommendations. Fort Myer assumed installation management responsibilities, and an integration of some functions and services between Fort Myer and Henderson Hall, including security/force protection, utilities, parking, circulation and access points, housing, and recreation, may occur to provide more efficient support of the on-Installation and regional populations.

Fort Myer and Henderson Hall are adjacent installations located in Arlington, Virginia, directly across the Potomac River from Washington, D.C.; Fort McNair is located in Southwest Washington, D.C. at the confluence of the Washington Channel of the Potomac River and the Anacostia River.

Fort Myer and Henderson Hall are home to the 3rd U.S. Infantry Regiment (The Old Guard) and the U.S. Marine Corps (USMC) Headquarters Battalion structured within the Marine Corps National Capital Region Command. Primary land uses of Fort Myer and Henderson Hall include Troop, Community Support, and Professional/Institutional. Troop land use maintains a close function relationship with Arlington National Cemetery (ANC) and the National Capital Region (NCR); The Old Guard provides ceremonial duties at ANC and security for the nation's capital as a first response infantry unit. Community Support at Fort Myer and Henderson Hall provides services and support to more than 6,000 soldiers and more than 114,000 family members, retirees, and veterans in the NCR.

Fort McNair is the location of the National Defense University, a center for education, research, and outreach in national and international security. It is also host to the Headquarters for the Military District of Washington (MDW). Fort McNair serves as the Joint Force Headquarters-National Capital Region, and the MDW base support of operations, providing a broad level of support for missions of homeland defense, defense support to civil authorities and world-class ceremonial, musical, and special event missions. The primary land use at Fort McNair is Professional/Institutional which is associated with the primary function of the Installation as a military education facility containing the National Defense University, the Inter-American Defense College, and the Center for Military History.

Proposed Action

JBM-HH currently continues short-term and long-term planning through individual, installation-specific planning documents: the Fort Myer 30-Year Master Plan, the Fort McNair 30-Year Master Plan, and the Henderson Hall Development Plan. Each plan addresses the immediate needs of each installation and the long-term requirements that fulfill the installations' missions as well as the missions of tenant organizations. The plans also provide mechanisms for integration and coordination of military construction, demolition, and facility improvement projects necessary to support the military missions on an individual basis.

JBM-HH proposes to adopt and implement a Real Property Master Plan (RPMP) in compliance with Army Regulation (AR) 210-20, *Real Property Master Planning for Army Installations*, which mandates updating existing plans as circumstances require. The proposed action would develop an updated RPMP that would accommodate the joint base status of JBM-HH and would guide short-term and long-term growth in a consistent, compatible and efficient manner that would ensure the conservation, protection, and sustainability of resources for JBM-HH.

Purpose and Need for the Proposed Action

As a result of the joint base reorganization, current land use planning at JBM-HH is conducted on a project by project basis for each installation based on its individual planning document. The proposed action would develop an updated RPMP reflecting the joint base designation of JBM-HH and would ensure that JBM-HH and its tenant organizations are able to perform their mission and assigned tasks. The RPMP would provide a planning framework, tools, and direction to enable the utilization and development of the land within the Installation's boundaries in a manner that allows the continued expansion of JBM-HH to maintain an organized, functional, and sustainable installation that balances regional and local natural and cultural resources with Installation operations. The RPMP documents the comprehensive planning process for JBM-HH through 2030 and is comprised of several components: the Long Range Component (LRC), the Capital Investment Strategy (CIS), Short Range Component (SRC), Installation Design Guide (IDG), and Real Property Master Plan Digest. Proposed revised land use in the RPMP maintains existing categories for dominant land use within an area; however, revisions reflect the required changes in function, spatial relationships, physical layout of facilities, and development constraints to support future development implemented at JBM-HH. The Land Use Plan within the LRC details concepts for development, transportation circulation, open space, and viewshed in planning frameworks and updates the land use map.

Alternatives Assessed in the Environmental Assessment

Two alternatives have been developed for consideration. Alternative 1, the No Action alternative, would continue planning and development to support installation missions and would continue based on the guidance provided for future planning and development presented in the Fort Myer and Fort McNair 30-Year Master Plans and Henderson Hall Area Development Plan (Naval Facilities Engineering Command–Washington [NFECW] 2006). There would be no comprehensive, cohesive, long-term planning and development that would allow for efficient management of natural and cultural resources and facilities operations and maintenance for JBM-HH. JBM-HH land use as currently designated would not change.

Alternative 2, the Implementation of the RPMP, would implement the RPMP which requires that the proposed Land Use Plan and Future Development Plan identify appropriate land use patterns, based on the operational, cultural, and environmental constraints of the Installation and provide options for land use that would fulfill the future needs of JBM-HH. The RPMP incorporates recommendations from the previously developed 30-Year Master Plans for Fort Myer and Fort McNair and Henderson Hall Area Development Plan into the LRC. The planning frameworks for JBM-HH include frameworks for density, circulation, open space, and viewshed. Structured upon the LRC and existing conditions, a framework for future development under Alternative 2 would provide elements that guide appropriate types of long-range development at each location.

To maximize the life of the RPMP, specific projects are not addressed; however, locations and development type are identified. Future Area Development Plans and the Installation Design Guide would address specific details about the layout, size, and character of future development.

Environmental Consequences

The development of a Programmatic Environmental Assessment (PEA) in association with the RPMP for JBM-HH was chosen as a suitable format for describing and analyzing the broad issues and impacts related to the RPMP and would allow future tiering of subsequent environmental analyses whenever site-specific statements are necessary as individual projects or plans are developed. Consequently, this PEA and its findings are applicable to those future actions that are associated with the Proposed Action as part of the RPMP, provided those actions meet the requirements for review through a PEA under the National Environmental Policy Act (NEPA). Each project resulting from the implementation of the RPMP would be initiated only after environmental review has been completed and any required permits are obtained.

The existing natural, cultural, and socioeconomic environment that could be affected by the alternatives under consideration is described in this PEA. Impacts to resources would be similar for each alternative; however, the intensity of impacts may vary between alternatives and among proposed projects undertaken through either alternative. Impacts to topography, soils, surface water, water quality, vegetation, wildlife, air quality, noise, hazardous materials, solid waste and utilities are expected as a result of the Proposed Action. There would be no significant impacts under either alternative.

Natural Resources

For both alternatives, construction activities could include clearing, grading, cutting, and filling within construction footprints and would result in the alteration of topography as well as disturbance and removal of soil and vegetation in localized areas. Because most of the property within JBM-HH has been previously developed and the area within the boundaries of the installations is constrained by natural, cultural, and operational resources, the RPMP focuses on renovation and redevelopment of existing structures and previously developed areas. Proposed projects would generally have no impacts on vegetation, topography, soils, and geology. Wildlife species within JBM-HH are typically urban-suburban species tolerant of human activities; however, some temporary disturbance and/or displacement would be expected in areas under construction. No rare, threatened, or endangered species are known to occur within the installations. Bald eagles (*Haliaeetus leucocephalus*) use habitat along the Anacostia and Potomac rivers and may occur at Fort McNair.

Groundwater recharge would not be discernibly affected by the additional impervious surface resulting from development under either alternative because of the small amount of new construction and depth of the aquifers. Few surface water resources are located on JBM-HH. Impacts to surface water resources from stormwater runoff from construction and renovation sites could convey sediment and pollutants from areas of construction.

The Virginia Department of Environmental Quality (VDEQ) provided concurrence with the determination that the Proposed Action is not expected to affect the enforceable policies of the Virginia Coastal Zone Management Program.

Cultural Resources

Both alternatives would comply with the cultural resource regulatory framework, and the Integrated Cultural Resources Management Plan (ICRMP).

The implementation of Alternative 1 would include projects identified in the Fort Myer 30-Year Master Plan and the Henderson Hall Area Development Plan. Under Alternative 1, renovation of buildings would protect the historic character of the buildings as contributing resources to the Fort Myer Historic District. Planned development under Alternative 1 would not have an impact on cultural resources on Henderson Hall or Fort McNair.

New infill development proposed under Alternative 2 in the historic districts of JBM-HH would match and preserve the historic development pattern to minimize impacts, although impacts due to new construction, demolitions, interior rehabilitation, and minor alterations would be expected. Landscape development on or near historic districts would preserve open spaces and minimize impacts on the viewshed of the historic districts; however, some temporary impacts to the historic viewshed would be expected during construction.

Land Use

Land use designations under Alternative 1 would not change in the future. Future development would continue as outlined in the existing land use plans for each installation. Although land use and development would continue to support the future requirements for JBM-HH, there would be less efficiency in planning and development of projects implemented on a case by case basis.

Alternative 2 incorporates recommendations from the previously developed 30-Year Master Plans and Henderson Hall Area Development Plan into the RPMP Land Use Plan and the LRC and updates land use categories. Appropriate land use patterns are identified based on the operational, cultural, and environmental constraints of the installations and provide options for land use. Long-term beneficial effects on sustainability result from the revised land use due to increase efficiency of function, improved spatial relationships and the physical layout of facilities as proposed in the RPMP.

Both alternatives would provide beneficial impacts from proposed projects that would include renovation and redevelopment reducing the need for new construction. Sustainable design principles would be incorporated in proposed projects under both alternatives.

Transportation

The existing roadways would be maintained and roadway access between Fort Myer and Henderson Hall would be improved under Alternative 1.

Under Alternative 2, the existing roadways would be maintained; however, the circulation framework plan would improve traffic circulation, parking, and pedestrian access. For Fort

Myer and Henderson Hall the circulation framework creates a loop road circulating around the Installation's central urban core and identifies areas where parking and roadways should be separated to improve traffic circulation. Traffic circulation between Henderson Hall and Fort Myer would be improved with the creation of a connecting access road. Proposed intersection improvements would allow large vehicles to move more efficiently throughout the Installation. Parking is consolidated into structures or shared central areas to alleviate a shortage of parking and provide for increased densities. Pedestrian accessibility is improved with the creation of a pedestrian corridor that connects main activity centers on the Installation and implements a more complete multimodal pedestrian network. A new Access Control Point (ACP) layout for the main gate incorporated into the circulation framework would ease congestion and meet anti-terrorism/force protection (AT/FP) requirements. Fort McNair would benefit from minor alterations that would provide widening, dedicated turn lanes and improvements to ACPs.

Mitigation

Impacts of the alternatives could be mitigated through a variety of measures that may include:

- Construct site-specific controls for water quality management of impervious surface areas consistent with low impact development (LID) practices.
- Consideration of candidate areas for removal of existing impervious surface and/or use of pervious paving materials to be incorporated into final project design as practicable to reduce stormwater runoff.
- As necessary, provision of stable outfalls and mitigation of impacts to receiving tributaries. Tributaries should be restored to a stable condition prior to receiving additional flows from any development.
- Protection of mature trees and landscaping during construction.
- Restoration of vegetation with native species.
- Implementation of invasive/exotic vegetation management in disturbed areas.
- Mitigation for unavoidable loss of wetlands would be required.
- Discovery of previously unknown artifacts, human remains, or other burial objects would be treated in accordance with National Historic Preservation Act, 36 CFR 800 and the Native American Graves Protection and Repatriation Act.
- A Programmatic Agreement between JBM-HH and the Virginia Department of Historic Resources, DC Historic Preservation Office Advisory Council, National Capital Planning Commission (NCPC) and other consulting parties will be developed.
- In addition to the Virginia State Historic Preservation Office (SHPO), Section 106 consultation would include the NCPC for projects at Fort McNair and NCPC would be kept apprised of projects in Virginia.
- Construction contracts would include requirements for notification, security, and protection of cultural resources on-site.

- Incorporation of recycling requirements for construction demolition debris into all contracts for outside contractors
- Adherence to the Energy Policy Act of 2005, the Energy Independence and Security Act of 2007, Executive Orders 13423 and 13514 in order to improve energy efficiency, reduce water consumption, and improve overall quality of the environment.
- Adherence to the Installation Design Guide for landscaping and maintenance guidelines.
- A Transportation Management Plan (TMP) developed in alignment with the RPMP provides recommendations to reduce single-occupancy vehicles as a mode of choice for JBM-HH commuters and improve parking ratios to NCPC standards.
- Other mitigation measures may be implemented as practicable

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1.0 INTRODUCTION

Joint Base Myer-Henderson Hall (JBM-HH) includes Fort Myer, Henderson Hall, and Fort McNair, all located within the Washington, D.C. Metropolitan area. Fort Myer and Henderson Hall are adjacent installations located in Arlington, Virginia, directly across the Potomac River from Washington, D.C.; Fort McNair is located in Southwest Washington, D.C. at the confluence of the Washington Channel of the Potomac River and the Anacostia River (Figure 1).

Prior to the establishment of JBM-HH, the reorganization of the Military District of Washington (MDW), administratively established the Fort Myer Military Community, consisting of Fort Myer and Fort McNair, and closed of Cameron Station relocating a number of community services to Fort Myer [Fort Myer Military Community (FMMC) 1996a].

BRAC 2005 recommendations resulted in the creation of JBM-HH to increase efficiency. Fort Myer assumed installation management responsibilities for the Marine Corps installation at Henderson Hall in accordance with the Joint Basing Memorandum of Agreement, 18 September 2008. An integration of some functions and services between Fort Myer and Henderson Hall including security/force protection, utilities, parking, circulation and access points, housing, and recreation may occur to provide more efficient support of the on-Installation and regional populations (Naval Facilities Engineering Command–Washington [NFECW] 2006).

JBM-HH encompasses approximately 380 acres of land. The Army installation Fort Myer encompasses 243 acres between Arlington Boulevard / United States (U.S.) Route 50, Washington Boulevard / State Route (SR) 27 and Arlington National Cemetery (ANC) in Arlington, Virginia. Henderson Hall comprises 29 acres located adjacent to Fort Myer, east of Washington Boulevard / SR 27 and north of Columbia Pike / SR 244 in Arlington, Virginia (Figure 2). Fort McNair is an approximately 107-acre peninsula on Greenleaf Point south of P Street SW in Washington, D.C. (Figure 3).

Fort Myer and Henderson Hall are home to the 3rd U.S. Infantry Regiment (The Old Guard) and the U.S. Marine Corps (USMC) Headquarters Battalion structured within the Marine Corps National Capital Region Command. Fort McNair is the location of the National Defense University, a joint institution for education, research, and outreach in national and international security. Joint Base Myer-Henderson Hall provides installation services and support to military members, civilians, retirees and their families and base support to the Joint Force Headquarters-National Capital Region, and the MDW base support of operations. The USMC at Henderson Hall also provides services to Marines, retirees, and their families within the National Capital Region (NCR) as well as mission-related functions. Fort McNair's mission includes providing a campus for military academic activities, housing for senior personnel, along with security and support services for the Military Community of Washington, D.C., in addition to performing ceremonial functions. Together, the installations of JBM-HH provide a broad level of support for missions of homeland defense, defense support to civil authorities, and world-class ceremonial, musical, and special event missions.

JBM-HH is also a flagship installation providing service members with world-class facilities to live and work, and providing innovative and progressive programs and services to a large population of service members, their families, retirees, and the civilian workforce. Fort Myer

supports a total working population of 3,513 persons, of which 1,727 are civilians. Henderson Hall supports a total working population of 210 persons, of which 45 are civilians. Based on known operational requirements, the projected population of Fort Myer and Henderson Hall in 2012 is expected to be approximately 3,944, of which 1,734 are civilians (Atkins 2012). Currently Fort McNair supports a total population of 1,797 persons, of which 806 are civilians. The current population at Fort McNair is approximately 1,800, of which 814 are civilians based on known operational requirements (Atkins 2012). Within 40 miles of Fort Myer and Henderson Hall the population of military dependents and retirees is approximately 9,603; an additional 170 military dependents and retirees are located within 40 miles of Fort McNair.

The future JBM-HH aspires to:

“Operate the joint-based model installation and provide consistent installation services and support in a safe and secure environment, enabling successful joint mission accomplishment and enhancing the well-being of our nation’s service members, their families, and the Department of Defense (DoD) civilians in the NCR.”

Fort Myer will continue its three-fold mission: respond to crises, disasters, or security requirements in the NCR through implementation of various contingency plans; provide both base operations and a variety of specialized support to Army and other DoD organizations throughout the NCR; and conduct official national and international ceremonial, musical, and special events. Henderson Hall is expected to continue its current mission of providing support to Marine Corps personnel stationed within the NCR. Fort McNair will continue to provide support for military academic activities, housing for senior personnel, along with security and support services for the military community and ceremonial functions.

As a joint base, JBM-HH currently continues short-term and long-term planning through individual, installation-specific planning documents: the Fort Myer 30-Year Master Plan, [Fort Myer Military Community (FMMC) 1996a], and the Fort McNair 30-Year Master Plan [Fort Myer Military Community (FMMC) 1996b]. Each plan identifies land use, addresses the immediate needs of each installation, and identifies the long-term requirements that fulfill the installations’ missions as well as the missions of tenant organizations. The Henderson Hall Area Development Plan (NFECW 2006) includes short-term and long-term development goals for Henderson Hall based on a space allocation study that recommended use of existing facilities more efficiently (NFECW 2006).

The 2007 Army Master Planning Technical Manual revised land use planning and defined seven land use classifications: Professional/Institutional, Residential, Community, Troop, Industrial, Ranges and Training, and Airfield. There are no Airfield or Ranges and Training land uses designated within JBM-HH that are intended to provide flexibility in siting facilities and encourage mixed-use development. The 2007 Army Master Planning Technical Manual also includes a matrix that specifies which facilities are allowed, conditionally allowed, or not allowed under each land use category.

JBM-HH proposes to adopt and implement a Real Property Master Plan (RPMP) in compliance with Army Regulation (AR) 210-20, *Real Property Master Planning for Army Installations*.

Figure 1. Regional Location Map

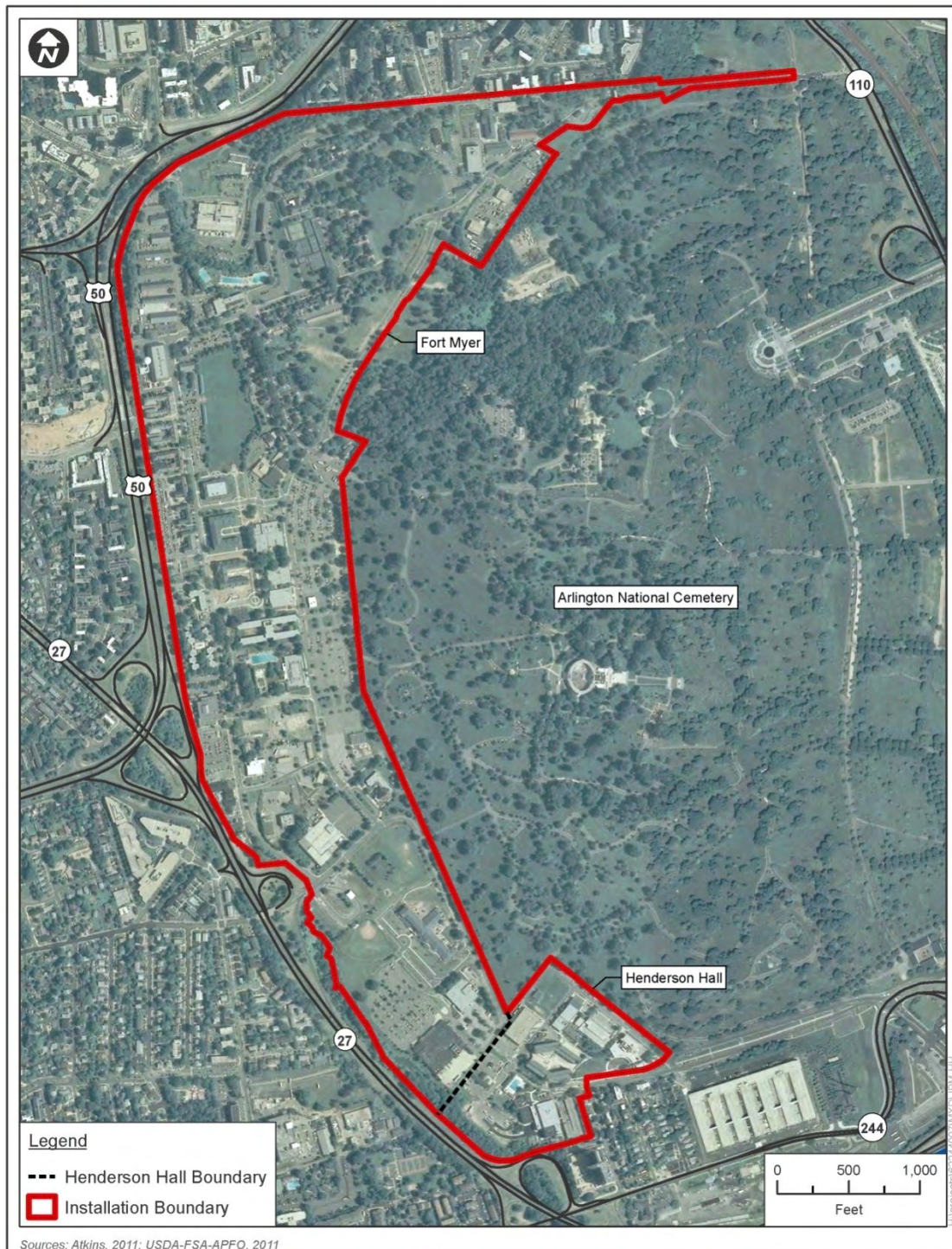
Figure 2. Fort Myer and Henderson Hall

Figure 3. Fort McNair



1.1 PURPOSE AND NEED

The purpose of the RPMP is to provide JBM-HH with the planning framework, tools, and direction to enable: the utilization and development of the land within JBM-HH's boundaries in a manner that allows the continued expansion of JBM-HH to maintain an organized, functional, and sustainable installation that balances regional and local natural and cultural resources with Installation operations. In addition, the planning process used to develop the RPMP identifies compatible and incompatible activities, and ensures that the Installation and tenant organizations are able to perform their mission and assigned tasks.

An assessment of functional and spatial relationships of land uses determined the best use of developable areas within the Installation and created a planning framework to guide future development on JBM-HH. Land uses at JBM-HH are classified into the following five categories:

- **Community** – provides services including recreational facilities and support for the military population
- **Industrial** – contains vehicle maintenance, warehouses, and other storage facilities
- **Professional/Institutional** – contains administrative offices, headquarters, laboratories, research and testing facilities for Research Development Testing and Evaluation, Government Support Organizations
- **Residential** – housing for transient and assigned military personnel
- **Troop** – training facilities

At Fort Myer and Henderson Hall, the primary land uses include Troop, Community Support, and Professional/Institutional. Troop land use maintains a close functional relationship with ANC and the NCR. The Old Guard provides ceremonial duties at ANC and security for the nation's capital as a first response infantry unit. Community Support at Fort Myer and Henderson Hall provides services and support to more than 6,000 soldiers and more than 114,000 family members, retirees, and veterans in the NCR.

The primary land use at Fort McNair is Professional/Institutional which is associated with the primary function of the Installation as a military education facility containing the National Defense University, the Inter-American Defense College, and the Center of Military History. Development potential at Fort McNair is limited due to lack of available space and historic designations of existing facilities.

The proposed RPMP is necessary to achieve optimal organization of real property and allow JBM-HH to operate more efficiently and ensure effective mission support. JBM-HH's military mission is diverse, global in extent, and is vital to the goals and objectives of the United States' defense strategy. The RPMP vision statement was developed in accordance with the JBM-HH vision and tenants:

“The Master Plan will support a unified military installation, which partners with the surrounding community, to protect and enhance the mission and traditions of JBM-HH through efficient and sustainable use of operational and historical resources. This plan will ensure continuation of military and family life that honors the past while embracing the future in a safe and secure environment.”

The RPMP documents the comprehensive planning process for JBM-HH through 2030 and is comprised of several components: the Long Range Component (LRC), the Capital Investment Strategy (CIS), Short Range Component (SRC), Installation Design Guide (IDG), and Real Property Master Plan Digest. The development of the LRC is a three part process that (1) evaluates the existing conditions; (2) examines the functional, spatial, and relationship patterns of existing land use; and, (3) presents the consensus on the direction and location of future installation development.

During its development, the RPMP was reviewed by local and regional planning agencies, is consistent with regional development and local comprehensive planning, and follows the guiding principles:

- continue to enhance the quality of life for service members, their families, and civilian workers;
- maintain the traditions and standard of the ceremonial mission;
- continue to enforce and enhance security measures to provide a safe and secure environment;
- protect and maintain environmental and cultural resources;
- involve the customer base and a diverse group of experts in the planning process; and
- coordinate Master Planning with the surrounding communities and agencies.

The assessment of functional relationships resulted in an increase of Troop, Professional/Institutional, and Community support functions and land use changes would occur to support the increase in these functions. Troop functions have been expanded by the relocation of the U.S. Army Band units at Fort McNair to Fort Myer and in the long term, under the “grow the force” initiative, the addition of more soldiers is expected. New centralized barracks and troop facilities at Fort Myer would accommodate the increase in troop functions. Professional/Institutional functions would be expanded to meet an increase in mission demands. Community support functions would be expanded to meet the needs of the population of service members, their families, retirees, and civilian workforce.

1.2 ENVIRONMENTAL REVIEW

As with all Federal agencies, JBM-HH must comply with the National Environmental Policy Act (NEPA) of 1969, which requires that all actions that are carried out, funded, or approved by the Federal Government be evaluated in accordance with 40 Code of Federal Regulations (CFR) 1500.2. NEPA provides the framework for evaluating the environmental consequences of an action, and defines the decision-making process used to evaluate the action. The intent of NEPA is to protect, restore, and enhance the environment by requiring all federal agencies and

programs that they fund to consider the environmental impacts of their proposed actions and reasonable alternatives to those actions.

Adoption and implementation of the RPMP constitutes a federal action and must be assessed in accordance with NEPA. The Council on Environmental Quality (CEQ) ensures that all federal agencies meet their obligations with regard to NEPA and has issued *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR Sections 1500-1508). The requirements for determining the level of NEPA analysis are described in 32 CFR 651.11 and 651.12, *Environmental Analysis of Army Actions*.

An Environmental Assessment (EA) is a concise public document that serves to provide evidence of the environmental impacts of a proposed action. To aid in decision-making, the assessment includes an evaluation of alternatives to the proposed action, and concludes with one of two findings: a Finding of No Significant Impact, meaning that the action will not cause any significant harm to the environment, or a Notice of Intent to prepare an Environmental Impact Statement.

NEPA recognizes that some projects encompass multiple recurring actions that are funded under a program, may occur over time, and may all require EAs. In such cases, a Programmatic Environmental Assessment (PEA) can be prepared. In addition to NEPA, this document has been written in accordance with 32 CFR Part 651, *Environmental Analysis of Army Actions, Final Rule* (March 2002). This rule was issued with respect to NEPA establishing the Army's responsibility for early integration of environmental consideration into planning and decision-making. Army agencies are encouraged to analyze actions at a programmatic level when programs are similar in nature or broad in scope to eliminate repetitive discussions of the same issues. A programmatic level review also focuses on key issues at each level of project review (32 CFR Part 651, Section 651.14(c), Programmatic Review). 32 CFR Part 651, Section 651.14(c) further states that when a broad programmatic EA or Environmental Impact Statement (EIS) has been prepared, any subsequent EA or EIS on an action included within the scope of the programmatic document may then summarize issues discussed in the broader statement and focus on the project-specific issues, or "tier" off of the programmatic document. In addition, programmatic level review can be implemented in order to reduce paper work and streamline the environmental review process.

The American Recovery and Reinvestment Act (ARRA) of 2009 directs that adequate resources under ARRA must be devoted to ensuring that applicable environmental reviews under NEPA are completed on an expeditious basis and that the shortest existing applicable process under NEPA shall be utilized. In order to implement this, ARRA recommends preparing programmatic analyses in cases where consolidated analysis of similar, connected, or cumulative proposals will facilitate efficient compliance with NEPA.

The discussion in this PEA of the environmental effects of the Proposed Action and Alternatives reflects the generalized environmental effects of the implementation of all actions associated with the JBM-HH RPMP. Consequently, this PEA and its findings are applicable to those future actions that are associated with the Proposed Action as part of the RPMP, provided those actions meet the requirements for review through a PEA under NEPA.

The development of a PEA in association with the RPMP for JBM-HH results in the analysis of broad issues and impacts related to the RPMP and would allow future tiering when subsequent narrower environmental analyses or ultimately site-specific statements are necessary. If a later action associated with the Proposed Action is expected to: (1) create impacts not described in the PEA; (2) create impacts greater in magnitude, extent or duration than those described in the PEA; or (3) require mitigation measures to keep impacts below significant levels that are not described in the PEA, then a Supplemental Environmental Assessment (SEA) would be prepared to address the specific action and would be tiered from this PEA in accordance with 40 CFR 1508.28.1. Further, actions that are determined to require a more detailed or broader review would be subject to the stand-alone EA or EIS process.

In conclusion, a PEA was chosen as the appropriate environmental document for JBM-HH's RPMP. The Proposed Action proposes a series of recurring actions to include the construction and addition of new buildings, building complexes, building expansions and additions, utility upgrades, road improvements, and an increase in the overall workforce.

This PEA has been prepared to consider the environmental consequences of the implementation of the RPMP in accordance with NEPA requirements and identifies and evaluates the effects of the Proposed Action at JBM-HH in accordance with NEPA and CEQ regulations.

1.3 REGULATORY FRAMEWORK

In addition to NEPA and CEQ regulations, other relevant regulations that are applicable to the environmental assessment process for the RPMP include federal legislation such as the Clean Air Act (CAA) of 1970, Clean Water Act (CWA), Safe Drinking Water Act, Noise Control Act, Coastal Zone Management Act, Endangered Species Act of 1973 (ESA), National Historic Preservation Act, Archeological Resources Protection Act, Resource Conservation and Recovery Act of 1976 (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Toxic Substances Control Act (TSCA), and the Energy Independence and Security Act of 2007.

Regional programs (Chesapeake Bay Program) and military programs (Military Munitions Response Program) are also applicable. Presidential Executive Orders (EOs) establish standards and relevant guidelines that cover topics such as: floodplain management (EO 11988), protection of wetlands (EO 11990), migratory birds (EO 13186), consultation with Indian tribal governments (EO 13175), environmental justice (EO 12898), protection of children from environmental health risks and safety risks (EO 13045), Superfund implementation (EO 12580), federal compliance with pollution control standards (EO 12088), efficient energy management (EO 13123), waste reduction and recycling (EO 13101), leadership in environmental management (EO 13148), strengthening federal environmental, energy, and transportation management (EO 13423), and protection of the Chesapeake Bay (EO 13508).

General air conformity regulations issued by the U.S. Environmental Protection Agency (EPA) (40 CFR Part 93, Subpart B) contain procedures and criteria to ensure that proposed federal actions comply with CAA implementation plans. These regulations apply to those federal agencies that would cause emissions of criteria air pollutants above certain levels. These

245 regulations and guidelines are addressed, as applicable, in relevant sections of this environmental
246 assessment.

247 Initiatives implemented by JBM-HH in response to federal requirements and regulations
248 determine constraints to development for the Installation. An assessment of existing conditions
249 on and off the Installation analyzed existing baseline information including regional planning,
250 regional demographics, history, facilities, land use, transportation, infrastructure, and utilities as
251 well as natural, cultural, and operational environmental resources, and resulted in the
252 identification of operational, natural, and cultural resources constraints to development. Natural
253 resource constraints include protection of floodplains, wetlands, and Resource Protection Areas
254 (RPAs); stormwater management, water quality, water table, soil load-bearing capacity, highly
255 erodible soils, steep slopes, and air quality protection. Operational constraints include
256 construction standards for anti-terrorism/force protection (AT/FP), hazardous waste management
257 units, asbestos and lead-based paint, solid waste management units, petroleum storage areas, and
258 petroleum release sites. Cultural resources constraints include historic and prehistoric sites,
259 viewsheds, and properties determined to be potentially eligible for listing on the National
260 Register of Historic Places including: Fort McNair Historic District (determined eligible for the
261 National Register); and individual properties such as the War College at Fort McNair, and
262 Quarters 1 at Fort Myer, and the Fort Myer Historic District listed as National Landmarks.
263 When used in association with the land use designations, constraints to development help to
264 define the developable areas on JBM-HH within the designated functional areas.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

The Army proposes to adopt and implement an RPMP in compliance with AR 210-20, *Real Property Master Planning for Army Installations*, which mandates updating existing plans as circumstances require. The proposed action would develop an updated RPMP to guide short-term and long-term growth for JBM-HH in a consistent, compatible and efficient manner based upon land use designations that are consistent with the 2007 Army Master Planning Technical Manual.

Prior steps in the planning process established an installation vision, created guiding principles, and evaluated existing conditions and land use patterning. From the analysis of existing conditions and land use patterning on the Installation, future development planning provides insight into how and where development should occur in the future and conceptual plans that depict proposed land use changes and development constraints, and identifies and prioritizes the best use of future development as well as the type and location of future development on each site. Proposed revised land use in the RPMP maintains existing categories for dominant land use within an area; however, revisions reflect the required changes in function, spatial relationships, physical layout of facilities, and development constraints to support future development implemented at JBM-HH. The land use plan details concepts for development, transportation circulation, open space, and viewshed in planning frameworks and updates the land use map.

2.1 DESCRIPTION OF ALTERNATIVES

2.1.1 Alternatives Considered but Dismissed

The visioning session with Installation Command and tenants at the initiation of the RPMP planning process provided a master plan vision statement as well as guiding principles and goals to achieve the master plan vision that allow JBM-HH to use one master plan for future development. During the RPMP planning process, a variety of options for land use and development including circulation improvements and enhancement of open space that would support a unified military installation were considered by the Installation Command, tenants, and other involved groups. The planning process looked at three options for future planning and development within Fort Myer and Henderson Hall and two options for future planning and development for Fort McNair.

Fort Myer and Henderson Hall

The three options for Fort Myer and Henderson Hall included a Town Center Concept, an Historic-Troop Concept, and a Contingency Concept.

The Town Center Concept focused development on consolidation of community services and other compatible uses into a compact, central location that would focus on regional services. The result would create greater efficiency and potential cost savings as well as increase the availability of areas for other uses throughout the installations. The concept also provided the potential for long-term expansion and future development of the Town Center. Elements of the Town Center Concept also included:

- Expansion of Troop facilities with a focus on building on existing Troop areas;

- 305 • consolidation of recreation fields and facilities;
- 306 • establishing a ceremonial staging area at Chapel Gate on Fort Myer; and
- 307 • the potential for services between Fort Myer and Henderson hall to be consolidated.

308 The Historic-Troop Concept emphasized an increase in troop facilities as well as the preservation
309 of the installation layouts and historic buildings. The main elements of the Historic-Troop
310 Concept were:

- 311 • The expansion of troop functions;
- 312 • Preservation of historic structures;
- 313 • Establishment of a memorial park at Chapel Gate;
- 314 • Establishment of a Troop staging area near Chapel Gate;
- 315 • Consolidation of recreation fields; and
- 316 • Development of a Troop training area on the site of existing tennis courts.

317 The Contingency Concept focused on troop and emergency support land uses consistent with the
318 role of Fort Myer and Henderson Hall to provide support in terms of response and facility
319 accommodations in the event of an emergency situation in the NCR. The main features of the
320 Contingency Concept were:

- 321 • A Troop central core that consolidated and centralizes Troop land uses;
- 322 • Establishment of a Troop deployment and emergency facilities area in order to provide
323 appropriate rapid response and support;
- 324 • New Department of Emergency Services (DES) facilities in order to improve responses
325 to emergency situations; and
- 326 • A new emergency facility that can provide long-term support for any personnel relocated
327 to the installations.

328 **Fort McNair**

329 Two concepts for Fort McNair were identified as the Academic-Open Space Concept and the
330 Contingency-Mission Concept.

331 The Academic-Open Space Concept focused on the development of a campus-like setting by
332 providing academic space for various academic institutions located on Fort McNair and
333 enhancement of open spaces. Recreation fields and facilities would be consolidated and enhance
334 the Academic-Open Space theme. The primary features of this concept included:

- 335 • The relocation of buildings (Buildings 17, 20, and 21) to a long-term build-out area to
336 create an uninterrupted Parade Field and quality open space;
- 337 • Consolidation of recreation fields and facilities along B Street;
- 338 • Establishment of an open space/special events area on a prominent point in Washington,
339 D.C.;

- Long-term build-out areas along the perimeter of the Parade Field for academic facilities or similar uses;
- Transfer of The Old Guard to Fort Myer increasing the area of academic activities; and
- A temporary access control point (ACP) that would become a long-term build-out.

The Contingency-Mission Concept emphasized the expansion of Joint Forces Headquarters, NCR/MDW facilities and a strengthening of the Installation's ability to respond to emergency situations. Main features of the concept include:

- The expansion of Joint Forces Headquarters, NCR/MDW facilities in a campus-like setting in the northern portion of the Installation;
- New DES facilities developed on the temporary ACP site;
- Privatized Army Lodging constructed south of the Officers' Club;
- Establishment of an emergency services dock and staging area; and
- Long-term build-out areas along the perimeter of the Parade Field.

The options these alternatives contained were evaluated with regard to existing conditions on- and off-Installation that identified opportunities and constraints to development. As the RPMP planning process continued, the land use options within the concept alternatives were amended, eliminated, or incorporated into a final plan that evolved into the proposed RPMP which includes elements of each of the three concept alternatives for Fort Myer and Henderson Hall and two concept alternatives for Fort McNair. The final determination of implementable land use options comprise the Land Use Plan and the Future Development Plan that are contained within the proposed RPMP.

The planning process resulted in two alternatives for consideration within the PEA. Alternative 1, the No Action alternative, would continue planning and development to support installation missions based on the guidance provided for future planning and development presented in the Fort Myer and Fort McNair 30-Year Master Plans and Henderson Hall Area Development Plan (NFECW 2006). Land use as currently designated would not change. Alternative 2, the Implementation of the RPMP, requires that the proposed Land Use Plan and Future Development Plan identify appropriate land use patterns, based on the operational, cultural, and environmental constraints of the Installation and provide options for land use that will fulfill the future needs of JBM-HH. These two alternatives are presented below.

2.1.2 Alternative 1 – No Action (Baseline) Alternative

Alternative 1, the No Action alternative, would continue planning and development to support installation missions and would continue based on the guidance provided for future planning and development presented in the Fort Myer 30-Year Master Plan (FMMC 1996a), the Fort McNair 30-Year Master Plan (FMMC 1996b) and Henderson Hall Area Development Plan (NFECW 2006).

Existing land use at JBM-HH is presented in Figure 4 for Fort Myer and Henderson Hall and Figure 5 for Fort McNair. The projects under Alternative 1, for Fort Myer and Henderson Hall result in an increase of Professional/Institutional, Community Support, and Troop land use functions. Projects at Fort McNair result in an increase in Professional/Institutional land use and a decrease in Troop functions; the change in Troop function resulted from the relocation of a unit of The Old Guard (Company A) from Fort McNair to Fort Myer.

The Fort Myer 30-Year Master Plan includes construction, demolition, renovation and rehabilitation projects that are ongoing (completed by 2012), short-term (targeted for completion by 2017) and long-term projects (targeted for completion by 2024). Ongoing projects include:

- Construction of a 216-person barracks;
- Development of The Old Guard Museum by conversion of the Education Center;
- Creation of an Interim Battalion Headquarters by alteration of Building 228; and
- Renovation of Building 249 for a Commanding Officer facility.

Short-term projects targeted for completion by 2017 include several proposed demolition and renovation projects as well as the proposed construction of parking structures.

Long-term projects targeted for completion by 2024 include:

- The demolition of the bowling center and re-use of the site for construction of a new dining facility;
- The demolition of the existing dining facility and Community Center and construction of two new 210-person barracks on the sites;
- Modernization of existing barracks in Building 416; and
- Converting Buildings 246, 247, 248, 250, and 251 for The Old Guard Operations.

Other projects under consideration include expansion of the Commissary, creation of a one-stop Army and Air Force Exchange Service retail center, Privatized Army Lodging adjacent to Hatfield Gate, expansion of the DES and Physical Fitness Center facilities, and the creation of a one-stop processing facility at Hatfield Gate.

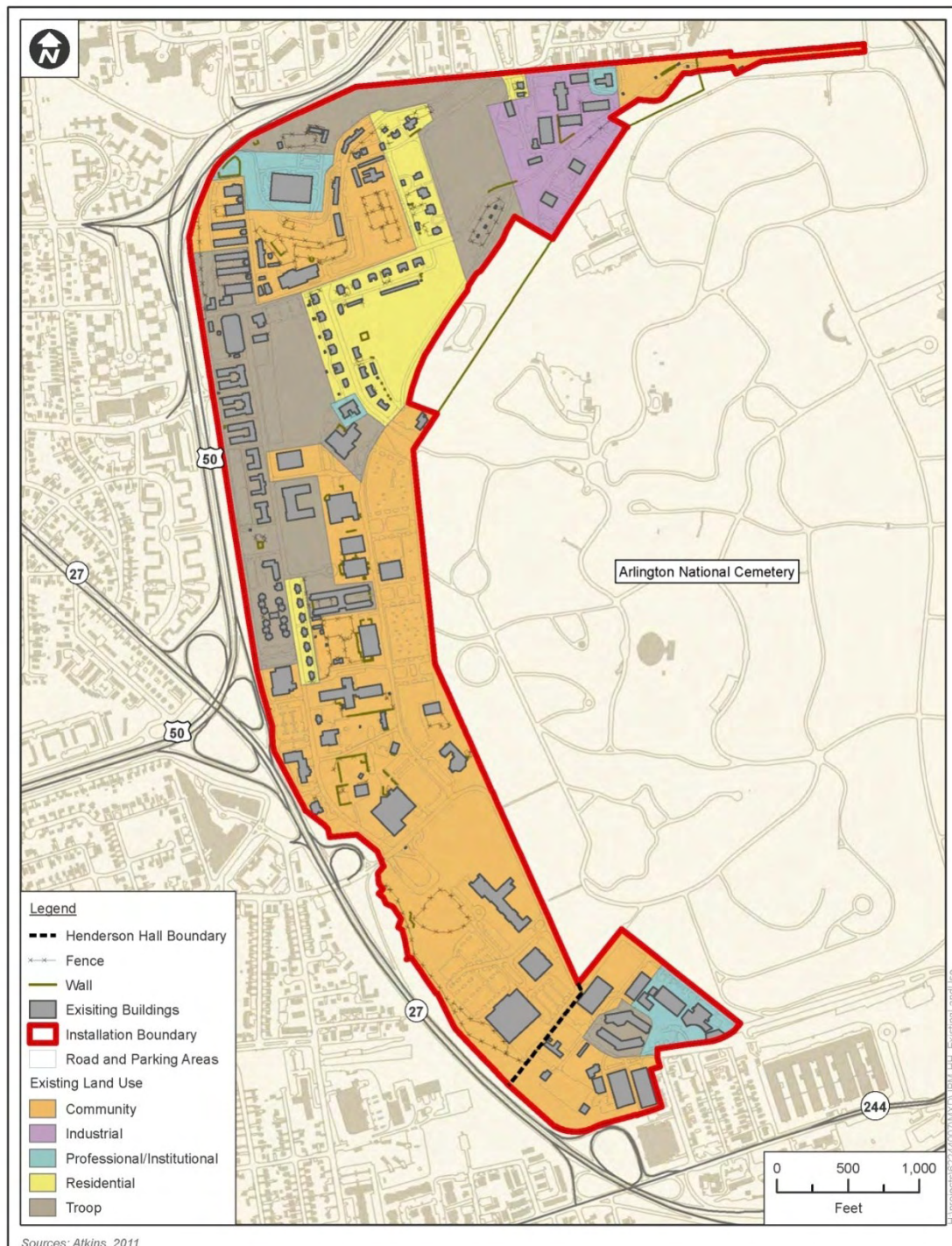
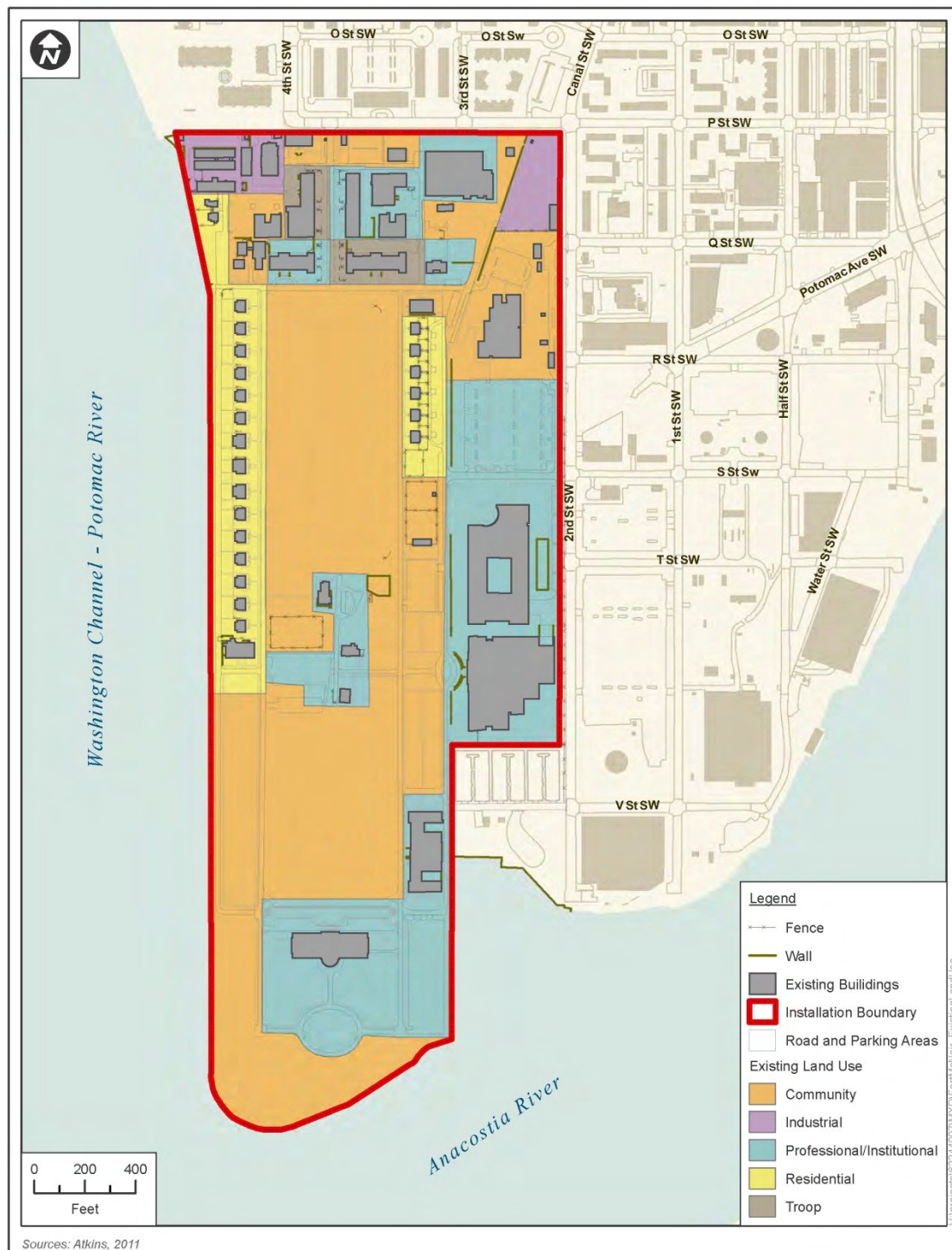
Figure 4. Fort Myer and Henderson Hall Existing Land Use

Figure 5. Fort McNair Existing Land Use

The Henderson Hall Area Development Plan includes a multiphase planning process that addresses short-term and long-term development goals for Henderson Hall. Projects considered for phased development in the Henderson Hall Area Development Plan (NFECW 2006) include:

- Renovations to Building 28 to accommodate Facilities Administration, DPW, and warehouse space for a maintenance shop;
- AT/FP improvements;
- Emergency generator facility;
- Construction and renovation projects to provide a car wash (completed), road improvements, and stormwater management pond;
- Outdoor Recreation Facility;
- Marine Commissary Exchange expansion; and
- Relocation of Family Services to Building 12.

Projects considered for development in the Fort McNair 30-Year Master Plan include:

- Whole barracks renovations – Building 48;
- Rehabilitation of buildings – Building 20 and 52;
- Possible Joint Forces Headquarters;
- Senior Non-Commissioned Officers' Quarters;
- Construction of DPW storage;
- Construction of a Recreation Pool (completed); and
- Parking Facility.

Projects described in the plans under Alternative 1 are in various stages: completed, planned, or under construction. Projects derived from each plan would be analyzed individually for potential environmental impacts as they are implemented. The analysis of the resources under Alternative 1 as discussed in this PEA are provided as general acknowledgment that impacts from current and future projects would continue without the implementation of an RPMP.

2.1.3 Alternative 2 – Implementation of the RPMP

Fort Myer and Henderson Hall

Proposed changes in land use designations at Fort Myer and Henderson Hall under Alternative 2 would achieve the consolidation of compatible land use, the best use of existing facilities, redevelopment opportunities, and greater efficiency of circulation and access. An increase in troop functions would occur over the long term and new centralized barracks would accommodate the increase. Residential land use would increase slightly. Professional/Institutional land use would also expand to meet mission demands. Community Support functions for the local and regional population would provide a wide range of services in

an efficient and convenient atmosphere of a Town Center that would also encourage pedestrian use and alternative forms of transportation. No change to Industrial land use is expected. Six distinct functional areas are delineated to encourage future planning that places similar types of development within each functional area and are presented on Figure 6:

Industrial Zone

The Industrial zone at Fort Myer and Henderson Hall contains the DPW, motor pool, and other maintenance-related functions of the Installation; future industrial facilities would be sited within the Industrial Zone.

Troop Village

The Troop Village at Fort Myer is central, characterized by barracks, headquarters buildings, Non-Commissioned Officer housing, The Old Guard buildings, dining hall, and recreational facilities.

Town Center

The Town Center area includes community support facilities such as the Commissary, shoppette, emergency services, and a Privatized Army Lodging facility for use by local and regional customers.

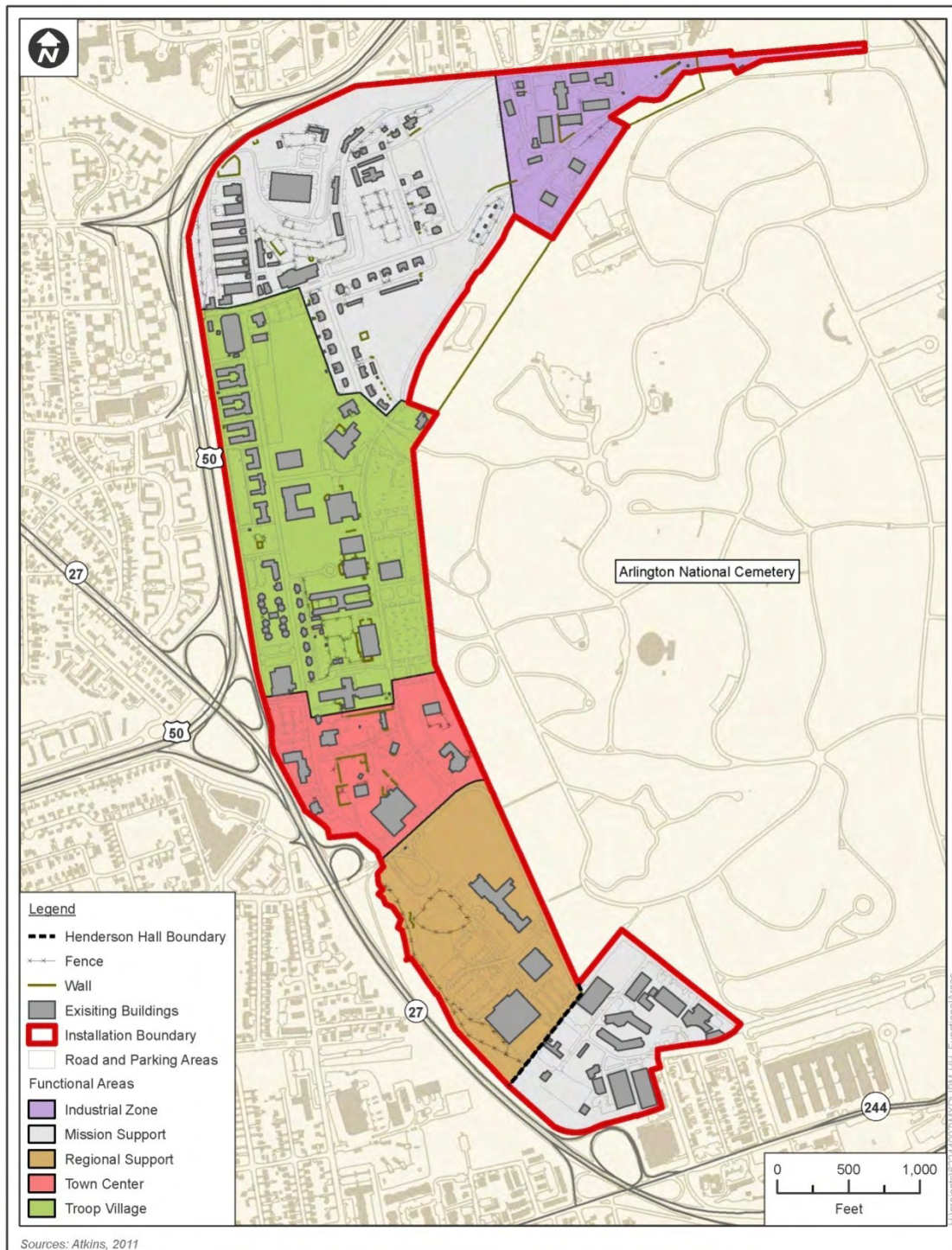
Regional Support

Community support for regional users such as Child Development Centers (CDCs), Commissary, and a medical clinic are sited within the Regional Support area.

Mission Support

Mission Support area is characterized by administration buildings, Marine Corps Exchange, a swimming pool, and the Historic District. The Historic District contains senior officer housing, historic stables, Officers' Club, recreational facilities (tennis courts, swimming pools), and areas of open space. Future development would increase administrative/office space.

Figure 6. Fort Myer and Henderson Hall Functional Areas



Fort McNair

The principal land use function at Fort McNair is associated with Professional/Institutional land uses and military education associated with the National Defense University, the Inter-American Defense College, and the Center of Military History. Development potential at Fort McNair is limited due to lack of available space and historic designations of existing facilities. Land use planning for Fort McNair under Alternative 2 reflects a decrease in Troop functions with the relocation of The Old Guard to Fort Myer and an increase in Professional/Institutional functions that focus on military education. Future land use would enhance the existing campus-like setting of Fort McNair as an increased demand for military education occurs. Industrial functions are maintained at Fort McNair; however, the space allocated would be decreased. Three functional areas are proposed as described below and presented on Figure 7.

Mission Support

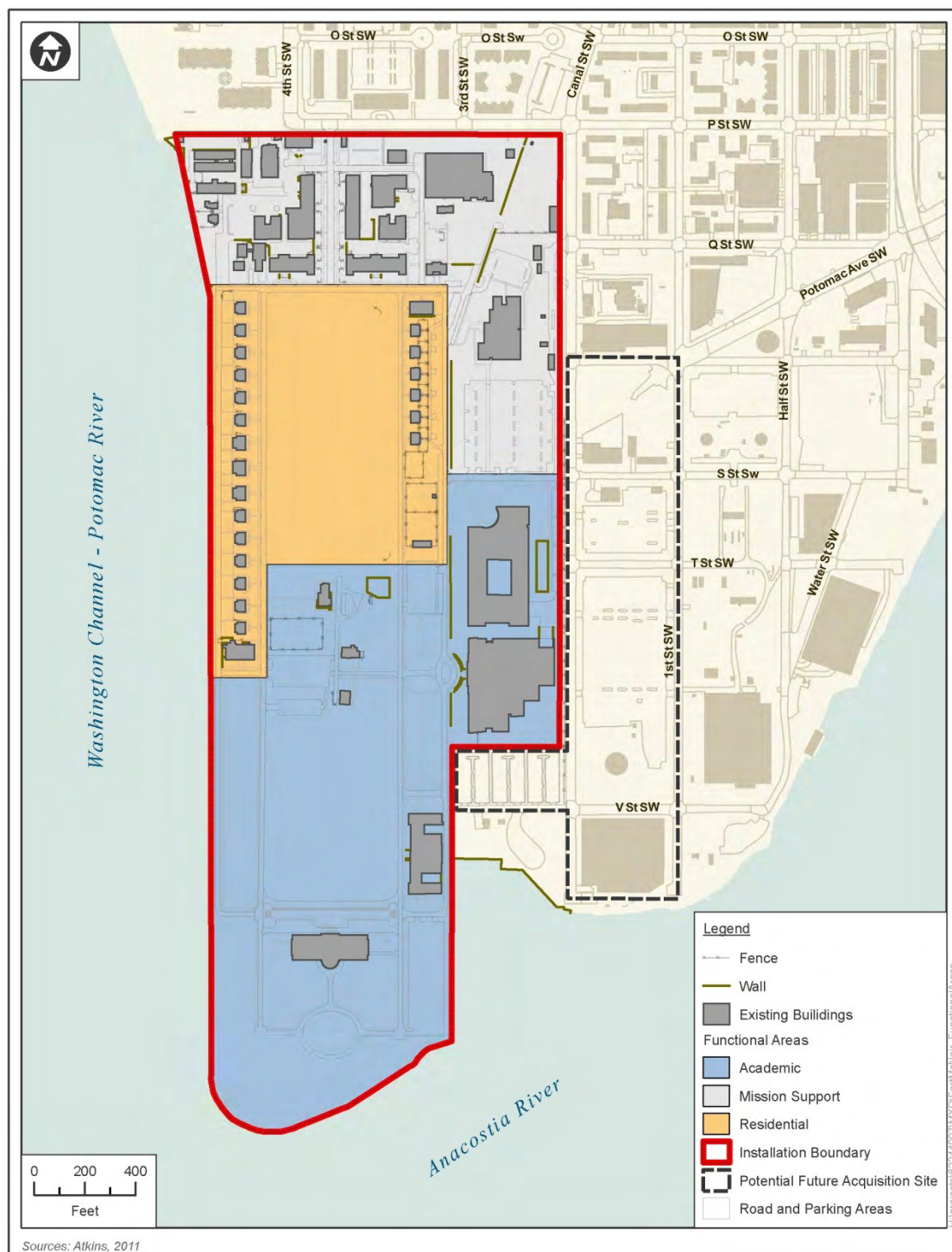
Mission support at Fort McNair consists of the Historic District, DPW offices, industrial functions, administrative and headquarters buildings, and a fitness center.

Residential

Students reside outside of the Installation and commute to Fort McNair; therefore, residential functions are small and include housing, the Officers' Club, and the Parade Grounds (open space).

Academic

The Academic functional area includes administration and instructional buildings for the National Defense University.

Figure 7. Fort McNair Functional Areas

Implementation of the RPMP requires that the proposed Land Use Plan and Future Development Plan identify appropriate land use patterns, based on the operational, cultural, and environmental constraints of the Installation and provide options for land use that will fulfill the future needs of JBM-HH. The RPMP incorporates recommendations from the previously developed Fort Myer and Fort McNair 30-Year Master Plans and the Henderson Hall Area Development Plan into the Land Use Plan and the LRC. The planning framework for JBM-HH includes frameworks for density, circulation, open space, and viewshed. A framework for future development under Alternative 2 would provide elements to guide appropriate types of long-range development at each location structured upon the LRC, Land Use Plan, and existing conditions.

The Future Development Plans for the installations comprising JBM-HH would propose new and infill development that focuses on recycling land, space and facilities to meet mission requirements and accommodate growth through 2030; consolidate similar functional uses to achieve work force efficiency, ease of access, and use of infrastructure; maintain the historic mission and character of the installations while providing development to support mission requirements; upgrade and improve utilities; and protect and maintain environmental and cultural resources throughout the installation. The Future Development Plan specific to Fort Myer and Henderson Hall would connect Henderson Hall to Fort Myer to unify the installation under one command for real property responsibilities and reserve sites within Henderson Hall for future Joint Base Mission Uses. The Future Development Plan specific to Fort McNair would provide infill development of similar scale in open parcels of land or redevelopment sites and would use potential future land acquisition site resources outside the Installation boundary to fulfill mission requirements and parking shortages within the Installation; however, surface parking would be minimized to maintain a campus-like setting yet meet AT/FP requirements. To maximize the life of the RPMP, the Future Development Plans would act as flexible guides. Specific projects are not addressed; however, locations and development type are identified.

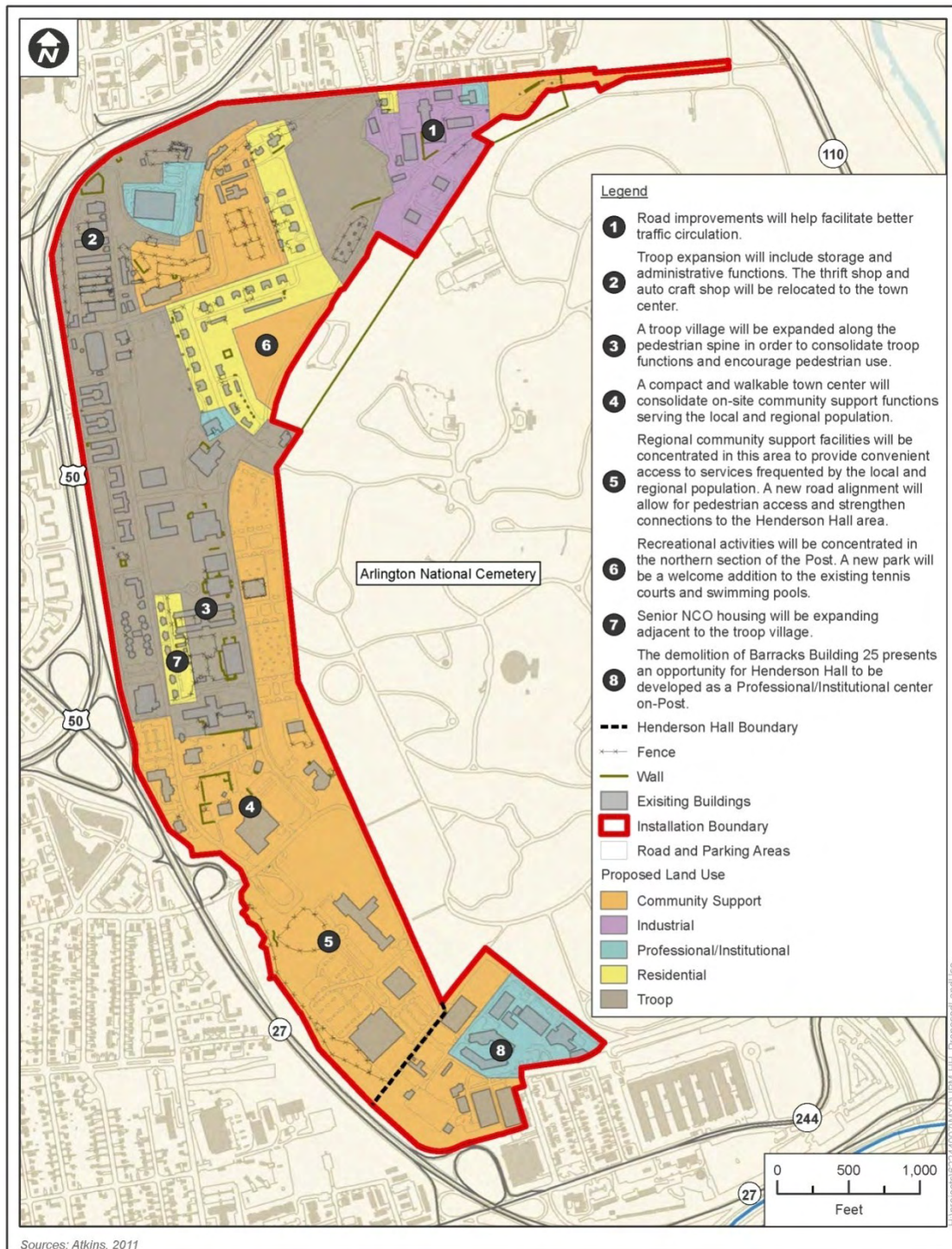
2.1.3.1 Fort Myer and Henderson Hall

Because Fort Myer and Henderson Hall have been adjacent but independent installations, a lack of cohesion exists between the two installations which would be improved under Alternative 2 by aligning land uses and functional relationships and improving accessibility and efficiency with improved street networks. Land use changes that would occur as a result of the implementation of Alternative 2 are discussed by land use category. The Land Use Plan proposes the following changes for Fort Myer and Henderson Hall as depicted on Figure 8:

Industrial

The northeastern section of the Installation would be maintained as industrial land use, primarily supporting the DPW.

- (1) Road improvements would create better traffic circulation.

Figure 8. Fort Myer and Henderson Hall Future Land Use

530 **Troop**

531 Troop functions would expand in the northern and central sections of the Installation to
532 accommodate joint base consolidation as a result of Base Realignment and Closure (BRAC)
533 2005 recommendations.

534 (1) Troop expansion would include storage and administrative functions. The thrift shop and
535 auto craft shop would be relocated to the Town Center.

536 (2) A Troop Village would be expanded along a pedestrian “spine” in order to consolidate
537 Troop functions and encourage pedestrian use.

538 **Community**

539 Community land use in the northern section of the Installation would shift to the east. A
540 decrease in Community land use would result from the expansion of the Troop Village in the
541 central portion of the Installation. Community functions would be consolidated into three main
542 areas.

543 (1) A compact and walkable Town Center would consolidate on-site community support
544 functions used by the local and regional population.

545 (2) Regional community support facilities would be concentrated to provide convenient
546 access to services frequently used by local and regional populations. A new road
547 alignment would allow pedestrian access and improve connections to Henderson Hall.

548 (3) Recreational activities would be concentrated in the northern section of the Installation; a
549 new park would be added to the existing tennis courts and swimming pools.

550 **Residential**

551 A slight increase in Residential land use would occur.

552 (1) Senior Non-Commissioned Officer housing would be expanded adjacent to the Troop
553 Village.

554 **Professional/Institutional**

555 A small amount of Professional/Institutional land use would be maintained within current
556 locations throughout Fort Myer; expansion of Professional/Institutional land use would occur
557 within Henderson Hall.

558 (1) Demolition of Barracks Building 25 would provide an opportunity for the development of
559 a Professional/Institutional center at Henderson Hall.

560 Future land use changes would result in acreages for designated land use categories as presented
561 in Table 1 for Fort Myer and Henderson Hall.

562 **Table 1. Acreages for Existing Land Use Categories at Fort Myer and Henderson Hall**

Category of Land Use	Fort Myer and Henderson Hall	
	Existing	Future
Community	142.2	121.9
Industrial	15.5	15.2
Professional/Institutional	14.3	16.4
Residential	29.3	23.8
Troop	71.1	95.2
Ranges and Training	0.0	0.0
Airfield	0.0	0.0
Total	272.5	272.5
Source: Atkins 2012.		

563

564 **Development Framework**

565 The development framework for Fort Myer and Henderson Hall would consolidate similar
566 functions of land use into core areas to improve efficiency and circulation. Fort Myer and
567 Henderson Hall would be connected via an access road that creates efficient traffic movement.
568 A dense urban core would be created along the primary north-south pedestrian axis of Fort Myer
569 and Henderson Hall using redevelopment of the central area and additional development along
570 the central transportation corridors. Regional support uses for regional and local customers
571 would be located along primary roads and in the central core area in proximity of the public/main
572 gate; a potential parking structure could be located within this area. Infill development to meet
573 mission requirements and areas for expansion would be provided in accordance with the existing
574 development pattern. The Historic District in the north section of Fort Myer would be preserved
575 and infill development would match the historic development pattern.

576 Future development of Fort Myer and Henderson Hall resulting from implementation of the
577 RPMP would result in an overall increase in development of 31 percent as presented on Table 2.
578 The largest amount of development would occur within the Town Center (178 percent) and the
579 Regional Support Area (48 percent). The Troop Village area would include development of
580 additional residential, administrative, and potential parking facilities (Atkins 2012).

581

Table 2. Fort Myer and Henderson Hall Development Capacity

Functional Area	Existing GSF	Demolition GSF	Proposed GSF	Total GSF	Percent Change	Acres
Industrial	162,411	0	0	162,411	0	22.4
Historic	563,841	0	35,720	599,561	6	80.7
Troop	913,742	320,908	540,725	1,133,559	24	75.9
Town Center	133,236	23,995	260,793	370,034	178	26.7
Regional Support	139,028	0	66,966	205,994	48	37.9
Mission Support	Unavailable	N/A	31,650	N/A	N/A	25.5
Total*	1,912,258	344,903	935,854	2,471,559	31	269.1
GSF = gross square foot. Total calculations do not include Henderson Hall. Source: Atkins 2012.						

582

583 Circulation Framework

584 For Fort Myer and Henderson Hall the circulation framework would create a loop road
585 circulating around the Installation's central urban core and would identify areas where parking
586 and roadways should be separated to improve traffic circulation. Traffic circulation between
587 Henderson Hall and Fort Myer would be improved with the creation of a connecting access road.
588 Proposed intersection improvements would allow large vehicles to move more efficiently
589 throughout the Installation. Parking would be consolidated into structures or shared central areas
590 to alleviate a shortage of parking and in consideration of planning for increased densities.
591 Pedestrian accessibility would be improved with the creation of a pedestrian corridor that
592 connects main activity centers on the Installation, would parallel the main roadways on the
593 Installation, and would provide a multimodal pedestrian network. A new ACP layout for the
594 main gate that would be incorporated into the circulation framework would ease congestion and
595 meet AT/FP requirements.

596 Open Space Framework

597 The open space framework at Fort Myer and Henderson Hall would preserve previous open
598 space areas for passive recreation and would integrate new recreational facilities throughout the
599 Installation to enhance accessibility and use. The pedestrian network described above under the
600 Circulation Framework would also create a network of open space where it connects all active
601 and passive recreation areas and CDC playgrounds.

602 Viewshed Framework

603 The viewshed framework for Fort Myer and Henderson Hall would maintain the viewshed to the
604 Capitol and the historic views of Washington, D.C. from Fort Myer. The viewshed framework
605 would also impose height restrictions to a recommended maximum building height of four-
606 stories within the ANC viewshed buffer to maintain views from the cemetery, and ensure
607 compatibility of adjacent development along the eastern boundary of the Installation adjacent to
608 ANC with cemetery land use and ceremonial functions.

Future Transportation Plan

As part of the proposed RPMP development framework, improvements to the internal transportation network are conceptually presented in the LRC for Fort Myer and Henderson Hall. Additional traffic studies and design plans would be necessary prior to the implementation of any improvements.

In general, the existing roadway network at Fort Myer and Henderson Hall would be maintained; however, improvements to the road system could include widening, insertion of dedicated turn lanes, and upgrading ACPs to handle future traffic volumes. Facilities south of the main ACP include the Commissary, CDC, medical clinic, and other regional support services, and as such would receive regular use from individuals accessing these amenities from on and off Fort Myer. The Industrial area is a destination for delivery trucks that enter Fort Myer and Henderson Hall through Hatfield Gate; however, because the Industrial area is located near Wright Gate ACP, Wright Gate is regularly used as an exit. In addition, Installation DPW vehicles travel to and from the area daily. As a result of the vehicular traffic required to access the Industrial Area and the Town Center area, these areas would be developed with a vehicle-oriented focus. Because Fort Myer and Henderson Hall contains a high density of development over a relatively small area, the Installation could support pedestrian-friendly corridors and focus areas. The Historic District, Troop Village, Town Center (north of the main ACP), and Henderson Hall would be developed with networks of pedestrian walkways and corridors along main activity centers, connecting buildings and future potential multimodal transportation facilities. Conveniently centralized parking facilities would consolidate parking in proximity to pedestrian access networks.

Internal transportation improvements would include:

- A new primary roadway between Fort Myer and Henderson Hall;
- A one-way loop road in the vicinity of the historic stables;
- New curb cuts to define roadways from parking areas in the Industrial area;
- Improvement of truck access;
- Consolidation of parking into five new parking structures on the sites of existing surface parking areas to be constructed as needed; and
- Net increase in parking spaces based on the height of the parking structures developed.

2.1.3.2 Fort McNair Development Framework

The proposed development framework for Fort McNair would include infill development to meet mission requirements and would support a comprehensive campus design by maintaining the current development pattern on the Installation. Areas previously used for recreation and the Parade Ground would be preserved as low-density development to maintain the viewshed of the Washington Channel and the Potomac River. Parking would be consolidated in central areas to maintain and enhance the existing campus setting.

646 Parcels outside of the Installation boundary have been identified for possible future expansion to
647 meet mission requirements and in consideration of AT/FP requirements.

648 The Land Use Plan for Fort McNair identifies five land use designations and proposes the
649 following changes as depicted on Figure 9:

650 **Industrial**

651 Industrial land use would expand in the northern section of the Installation.

652 (1) The U.S. Army Transportation Agency is relocating to Fort McNair.

653 **Troop**

654 Land designated as Troop land use decreased as The Old Guard relocated to Fort Myer.

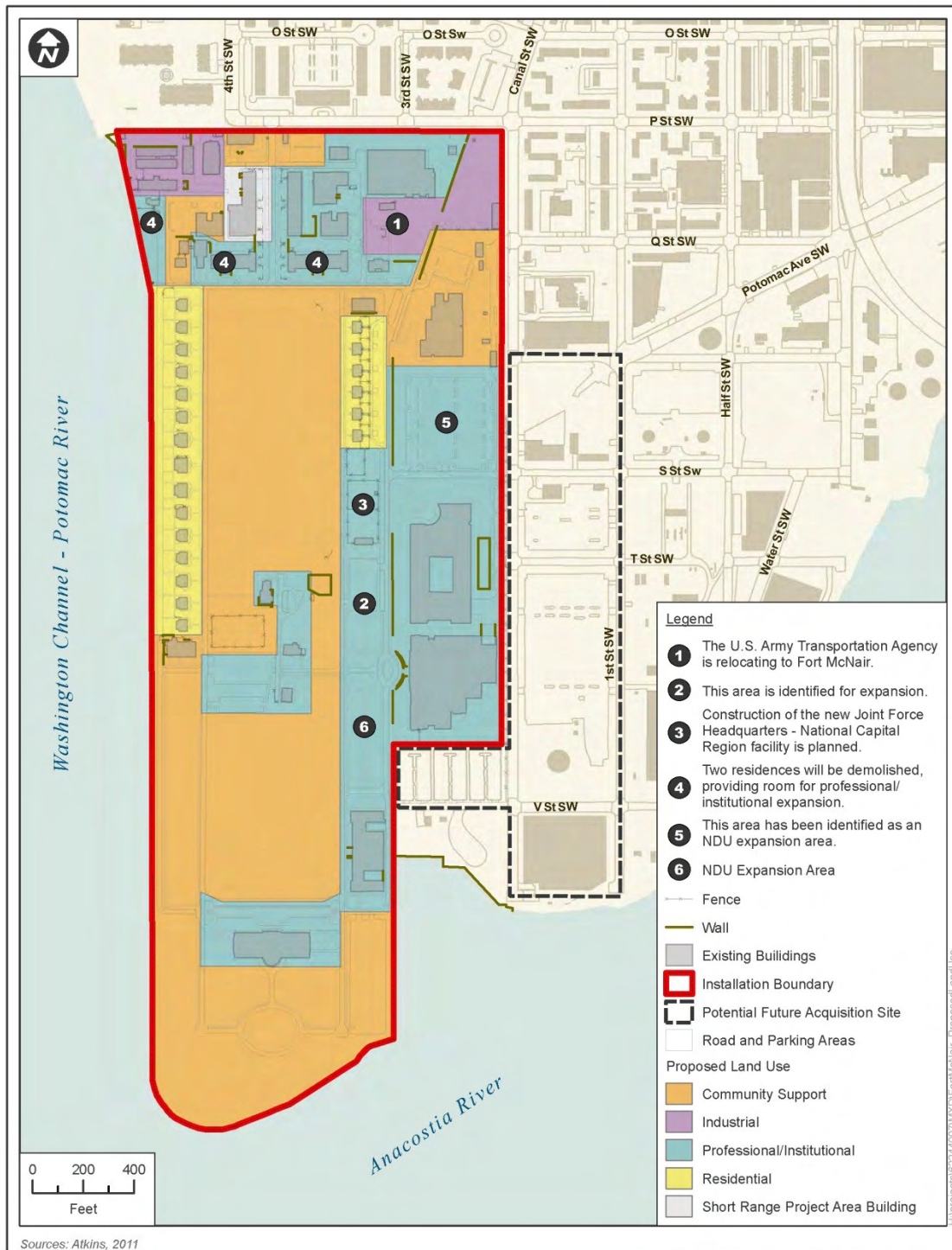
655 **Community**

656 Community land use would decrease as new infill development increases
657 Professional/Institutional land use on the east side of the Parade Ground.

658 **Residential**

659 Residential land use would not increase as a result of the new Land Use Plan.

660

Figure 9. Fort McNair Future Land Use

Professional/Institutional

Professional/ Institutional land use could expand on and off the Installation and increase the role of Fort McNair as a center for military education.

(1) Area is identified for expansion.

(2) Planned construction of new Joint Force Headquarters – NCR.

(3) Demolition of two residences would provide area for expansion of Professional/Institutional. Buildings 47 and 54 would be converted into administration facilities.

(4) An expansion area for the National Defense University has been identified.

(5) Area is designated for the construction of a new instructional building.

Future land use changes would result in acreages for designated land use categories as presented on Table 3 for Fort McNair.

Table 3. Acreages for Existing Land Use Categories at Fort McNair

Category of Land Use	Fort McNair	
	Existing	Future
Community	54.7	52.9
Industrial	3.9	5.6
Professional/Institutional	34.8	40.7
Residential	11.6	8.5
Troop	2.71	0.0
Total	107.7	107.7
Source: Atkins 2012.		

Future development of Fort McNair as presented in Alternative 2 could result in an overall increase in development of 33 percent as presented on Table 4. The largest potential increase in development capacity would occur in Mission Support (47 percent) (Atkins 2012).

680

Table 4. Fort McNair Development Capacity

Functional Area	Existing GSF	Demolition GSF	Proposed GSF	Total GSF	Percent Change	Acres
Mission Support	385,197	0	181,009	566,206	47	28.0
Residential	168,922	0	33,000	201,922	20	26.1
Academic	529,942	0	139,070	699,012	26	53.7
Total*	1,084,061	0	353,079	1,437,140	33	107.8
GSF = gross square foot. Source: Atkins 2012.						

681

682 Circulation Framework

683 The Fort McNair circulation framework would maintain the existing central loop road around the
684 Installation. Existing surface parking areas would be removed to meet AT/FP requirements and
685 parking would be consolidated into central surface parking lots or parking structures to alleviate
686 the existing shortage of parking. Areas where parking would be removed would be rehabilitated
687 as green space. The pedestrian network would be enhanced with walkways and multimodal
688 paths creating a central pedestrian loop connecting all activity nodes and open spaces; however,
689 pedestrian access would be reduced in areas with AT/FP constraints. The pedestrian-only gate at
690 the historic main gate on P Street would be maintained and would be connected to the central
691 pedestrian loop.

692 Open Space Framework

693 The open space framework for Fort McNair would maintain the Parade Ground and recreational
694 sports fields as a central open space and would preserve the south and southwest point of the
695 Installation as passive recreation areas that protect the viewshed at the confluence of the
696 Anacostia River and the Washington Channel of the Potomac River. The central pedestrian loop
697 described above under the Circulation Framework would also create a network of open space.
698 The open space framework would also provide a connection to the Anacostia River Trail at the
699 historic main gate on P Street and the 2nd Street gate.

700 Viewshed Framework

701 The viewshed framework for Fort McNair would restrict building heights associated with any
702 new construction to maintain views, and would restrict development along the western and
703 southern Installation boundaries to maintain viewsheds to the Washington Channel of the
704 Potomac River and the Anacostia River. Low density development would maintain the views to
705 Washington, D.C. from the northern section of the Installation. The historic setting of Fort
706 McNair would be preserved by maintaining views of the War College and historic buildings in
707 the central and northern sections of the Installation.

708 **Future Transportation Plan**

709 Similar to Fort Myer and Henderson Hall, Fort McNair is compact and no major roadway
710 realignments or development would be necessary; road widening and development of dedicated
711 turn lanes would manage traffic circulation. The Future Transportation Plan suggests a parking
712 ratio of 1:5 (one space to every five employees) to provide and encourage opportunities to reduce
713 single-occupancy vehicular use.

714

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the existing natural, cultural, and socioeconomic environment that could be affected by the alternatives under consideration for the installations comprising JBM-HH. For resources such as geology, topography, soils, terrestrial communities, and wetlands, the area of potential affect is limited to within the boundaries of the installations that comprise JBM-HH. For other resources such as cultural, transportation, and socioeconomic factors, the area potentially affected extends beyond the installations to the surrounding communities and the surrounding metropolitan region. The applicable study area or region of influence is described in each resource section. For each resource, the analysis of potential effects resulting from each alternative follows the discussion of the existing conditions.

3.1 REGIONAL AND GEOGRAPHIC SETTING

JBM-HH is located in the Washington, D.C. Metropolitan Area. Fort Myer and Henderson Hall are located in Arlington, Virginia, directly across the Potomac River from Washington, D.C. (Figure 1), and comprise a total of 272 acres. Arlington County Virginia is a densely settled suburb of Washington, D.C and continues to increase in population due to its proximity and convenient access to the nation's capital. The Federal government is the largest single employer in Arlington County (Arlington County 2011a).

Fort McNair is located in the Southwest Waterfront and Buzzard Point sections of Washington, D.C., at the confluence of the Washington Channel of the Potomac River and the Anacostia River, and consists of approximately 107 acres (Figure 1). The surrounding area consists of nearly 3 square miles characterized by industry, large open spaces and wetlands, housing, and commercial centers. As in Arlington County, Virginia, the federal government is also one of the largest employers in the Southwest/Near Southwest section of Washington, D.C. Recently, the Southwest Waterfront has been the focus of planning and infrastructure development.

3.2 TOPOGRAPHY, SOILS, AND GEOLOGY

JBM-HH lies within the mid-Atlantic Coastal Plain, which is comprised of a wedge of sediments that rest on eroded Precambrian to early Mesozoic rock increasing in thickness from west to east. The sediments are comprised of sands, silts, and clays (William and Mary 2011).

3.2.1 Topography

Fort Myer and Henderson Hall

Fort Myer topographic relief is moderate with elevations ranging from 55 feet (ft) above mean sea level (msl) to 235 ft msl in the northern portion of the Installation. There are moderately steep slopes in the northern portion of the Installation that constrain development and are at risk for erosion if improperly managed (FMMC 2002). Henderson Hall is positioned on a knoll and topography ranges from 134 to 170 ft msl. The lowest elevation at Henderson Hall is in the flood basin parking lot in the southwest section, and the highest point is at the northern corner of Henderson Hall adjacent to ANC and Fort Myer (NFECW 2006). (A discussion of floodplains is presented in section 3.3.8, Floodplains). There are no steep slopes that would constrain

development within Henderson Hall (NFECW 2006). Areas of steep slopes and the flood basin are presented on Figure 10.

Fort McNair

At Fort McNair topographic relief is minimal. Elevation ranges from sea level along the Potomac River to 17 ft msl in the National War College quadrangle. The seawall surrounding the facility has an elevation of 4.2 ft, and building areas are generally 10-12 ft in elevation. There is an approximate 5-ft change in elevation along the brick wall near the P Street gate, sloping to grade at the gate through the wall to 5th Avenue (FMMC 2003). The topography of Fort McNair is presented on Figure 11.

3.2.2 Soils

Fort Myer and Henderson Hall

Soils on Fort Myer and Henderson Hall are moderately well drained, although during storm events water pools in low-lying sections. The Arlington County Soil Survey classified soils within Fort Myer and Henderson Hall as Urban land-Udorthents complex, with 2 to 15 percent slopes (Harper 2007). Urban land typically refers to areas covered by impervious materials. Udorthents are well drained to excessively drained, loamy and clayey soils (FMCC 2002, Harper 2007). Construction in the mid-1980s at Henderson Hall indicated that soils are of poor load-bearing capacity (NFECW 2006).

Fort McNair

The most recent soils survey done at Fort McNair is from 1975 and describes the majority of the soils as Matapeake-Urban Land, in addition to Urban-land association soils and Linside loam soils. A large portion of the soils at Fort McNair are fill from the dredging of the Potomac River, and consist mostly of sandy silts with mixtures of clay. The Urban-land soils refer to soils in portions of the Installation characterized by more than 80 percent impervious surfaces. Matapeake-Urban Land soils are nearly level or gently sloping, well drained, and found in areas that have been disturbed by grading for development. Linside loam soils are found on the floodplains of the Potomac River. They have moderate permeability that can cause ponding after heavy rainfall. Linside soils have poor potential for use of building sites. Some areas of the Installation are known to have unconsolidated soils, possibly contaminated, and a high water table (U.S. Department of Agriculture [USDA] 1976; FMMC 2003).

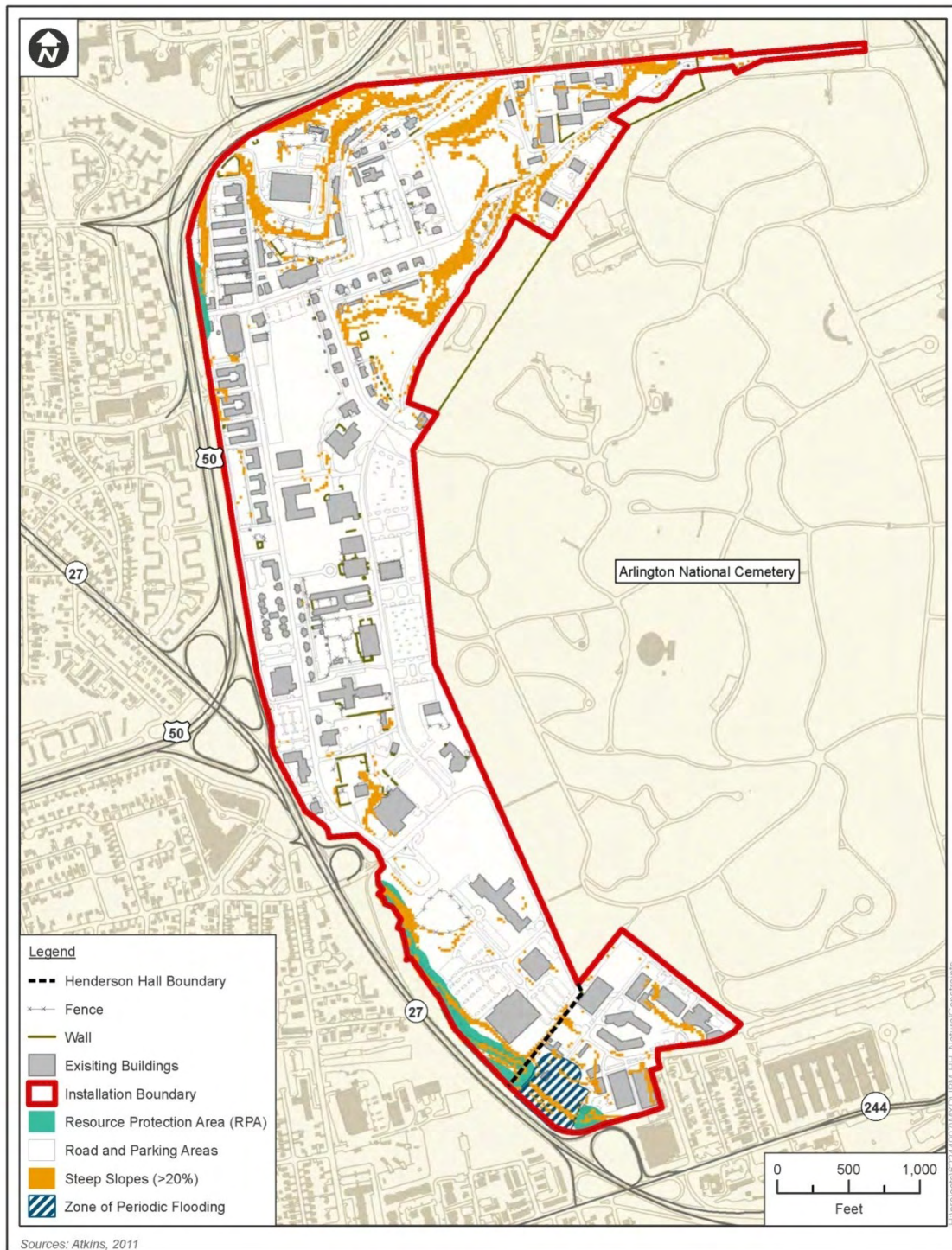
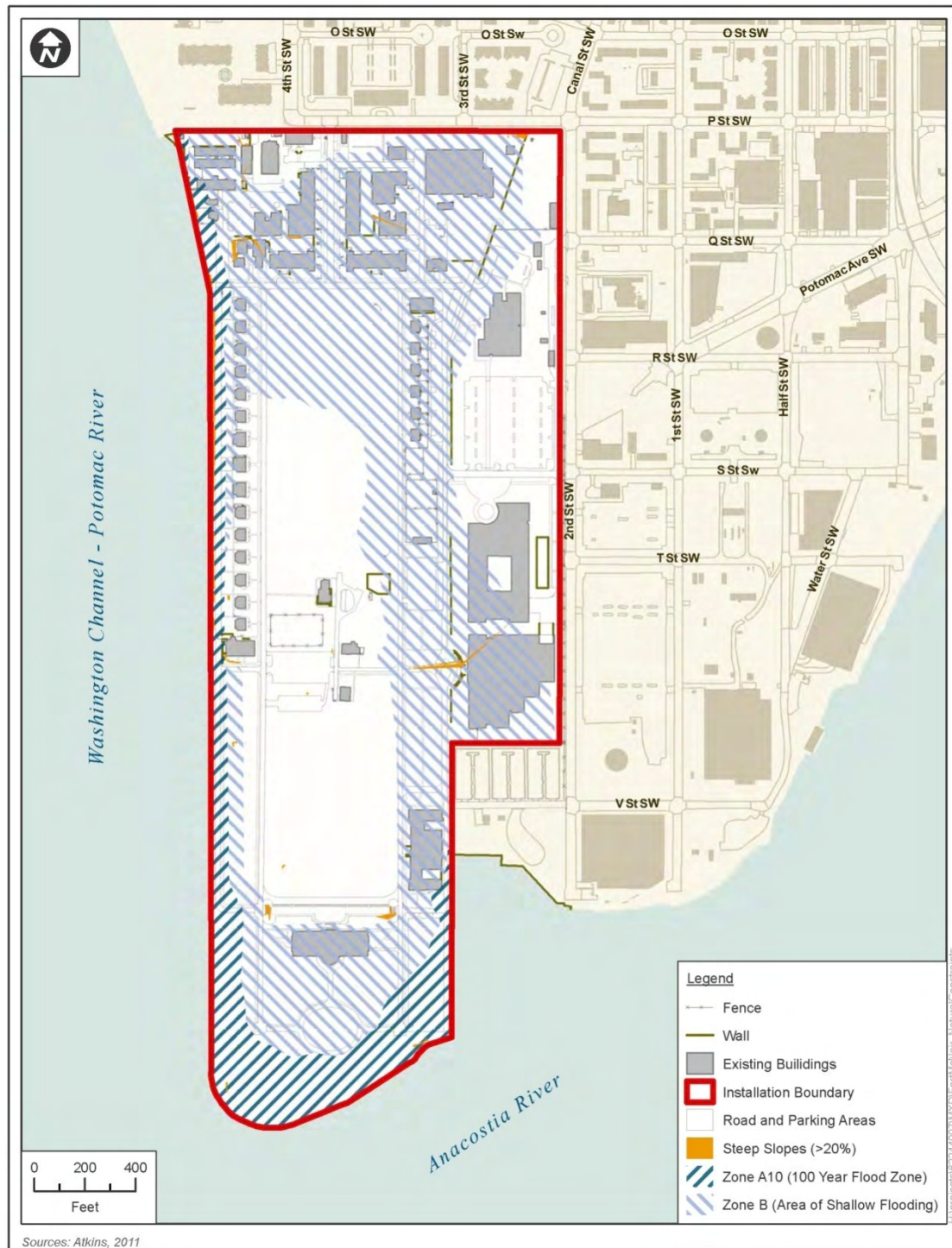
Figure 10. Fort Myer and Henderson Hall Natural Resource Constraints Map

Figure 11. Fort McNair Natural Resource Constraints Map



3.2.3 Geology

Fort Myer and Henderson Hall

The geology of Fort Myer and Henderson Hall consists mainly of unconsolidated clays, silts, and sands that are underlain by depositional sand, gravel, and three types of similar sediments from the Cretaceous era: Patapsco, Arundel, and Patuxent, part of the Potomac Group, and are designated by upper beds of pink, red, and gray clay. The fundamental part of these formations is made up of sand, gravel, and occasionally a type of sandstone, which make some of the most valuable water-bearing formations in the region (FMMC 2002; NFECW 2006). The northeastern portion of Henderson Hall also includes river terrace deposits consisting of gravel, sand, silt, and loam, overlying boulders, pebbles, and sands (NFECW 2006).

Fort McNair

Previous site investigations of Fort McNair revealed that the existing geology was complicated due to a history of dredging, filling, and demolition. The depth of existing fill is 35 to 40 ft and dense sand, gravel, silt and clay soils are present below depths of 40 ft. Underlying metamorphic, crystalline rock in the area is found at depths between 250 and 300 ft (FMMC 2003).

3.2.4 Environmental Consequences of the Alternatives on Topography, Soils, and Geology

The majority of the area comprising JBM-HH has historically been developed. Construction activities, including extensive use of fill material at Fort McNair, have occurred throughout the history of the installations, resulting in alterations to the original topography, excavated geology, and disturbed soils.

3.2.4.1 Alternative 1 – No Action

Development as a result of projects outlined in Alternative 1 would result in a small increase in impervious surfaces and a permanent loss of soil function within permanent building and roadway footprints; additional projects developed under these plans could continue to incrementally increase the amount of impervious surfaces. Under Alternative 1, topography and soils could be affected as a result of construction projects that could include clearing, grading, cutting, and filling within construction footprints. Poor load-bearing soils and steep slopes would be avoided. The alteration of topography as well as disturbance and removal of soil in localized areas would result. Renovation and redevelopment projects would generally have no impacts to topography, soils, and geology under Alternative 1.

Projects would be completed using best management practices (BMPs) for erosion and sediment control for all development activities consistent with applicable erosion and sedimentation regulations. Standard engineering practices and BMPs would be implemented to address construction-related issues stemming from local geology, including practices such as appropriate design criteria (e.g., depth and location) for placement of footings in preparation for building roads and foundations.

3.2.4.2 Alternative 2 – Implementation of the RPMP

Implementation of the RPMP would be constrained to areas of suitable soils, topography, and geology. Poor load-bearing soils and steep slopes would be avoided. The RPMP would have limited areas for new development and would instead focus on the renovation of existing facilities and would develop areas where previous development would be demolished. Impacts to soils and topography at all installations would occur from localized areas of soil removal and disturbance as a result of excavations, any cutting and filling or leveling to grade for construction, resulting in alterations in topography. Permanent loss of soil function would occur in the footprint(s) of any new construction including roadway widening for turn lanes and circulation improvements, and redevelopment of previously developed areas could also recreate or increase areas of impervious surfaces. An increase in impervious surfaces would result from development of new facilities and the widening and/or relocation of roadways (see Section 3.9, Transportation). The development of new parking structures for Fort Myer and Henderson Hall would not be expected to substantially increase the amount of impervious surface because the intent in development of parking structures is to use the existing footprint and build tiered structures that would increase parking spaces without increasing the amount of surface area paved.

Development would implement BMPs for erosion and sediment control for all development activities consistent with applicable erosion and sedimentation regulations. Standard engineering practices and BMPs would be implemented to address construction-related issues stemming from local geology, including practices such as appropriate design criteria (e.g., depth and location) for placement of footings in preparation for building roads and foundations.

3.2.5 Mitigation Measures

Projects would be initiated only after the environmental review has been completed and the required permits are obtained. For Fort Myer and Henderson Hall, erosion and sediment control requirements would be in accordance with requirements set forth under the Virginia Erosion and Sediment Control Law and Regulations, the Virginia Stormwater Management Law, and the Virginia Stormwater Management Program in addition to the requirements set forth under the Arlington County Code. The Commonwealth of Virginia mandates erosion control techniques during and after construction and techniques apply even if erodible soils are not present. Fort McNair would be required to comply with erosion and sediment control requirements in accordance with the District of Columbia Municipal Regulations.

Fort McNair would prepare a detailed Erosion and Sediment Control Plan that incorporates some or all of these measures for submission, review, and concurrence by the District of Columbia, Department of Health. Furthermore, a National Pollutant Discharge Elimination System (NPDES) permit for construction activities at JBM-HH would be required prior to any earth-moving activities. Because Fort McNair is located on the Potomac River, stormwater quality control would be required. Stormwater quality control typically consists of providing treatment through the use of water quality BMPs. Typical stormwater management BMPs include bioretention, sand filters, or certain proprietary devices.

Poor load-bearing soils and steep slopes would be avoided. However, if unavoidable, new construction on steeply sloped terrain or poor load-bearing soils would be reviewed on a case-by-case basis by analyzing individual building sites and appropriate engineering practices. In particular, new construction at Henderson Hall may require that buildings be designed with special foundations that include pilings because of the poor load-bearing qualities of existing soils. Reuse of removed soil and clean construction waste should be considered for use as fill where necessary.

The use of pervious paving surfaces, restoration of vegetation, and landscaping would be implemented as appropriate to offset the increase in impervious surface. Other mitigation measures may include but are not limited to construction of site-specific controls for water quality management of impervious areas consistent with Low Impact Development (LID) practices.

3.3 WATER RESOURCES

All three installations that comprise JBM-HH are within the Middle Potomac River watershed; Fort McNair is also within the Anacostia River watershed. The Anacostia River watershed drains into the Potomac River which ultimately drains into the Chesapeake Bay. JBM-HH is located within the Northern Atlantic Coastal Plain Aquifer System, more specifically over the Chesapeake (shallow) and Potomac River (deep) aquifer systems; both are sand and gravel aquifer systems typical of the coastal plain (U.S. Geological Survey [USGS] 2001).

3.3.1 Groundwater

Fort Myer and Henderson Hall

The principal water-bearing aquifers in the vicinity of Fort Myer are the Patuxent, Patapsco, and Magothy, which generally store groundwater at depths of 20 to 30 ft at locations on the Installation. Groundwater flow is generally toward the southeast and the Potomac River. Groundwater recharge occurs from precipitation in outcrop areas and, in some areas, from downward leakage through confining beds. Groundwater is not used as a drinking water supply for Fort Myer and Henderson Hall because municipally treated water from the Potomac River is supplied by the Arlington County water system (FMMC 2002). There is no specific groundwater information available for Henderson Hall; however, because of the existing topography and proximity to Fort Myer, groundwater flow is likely to be similar to that on Fort Myer.

Fort McNair

Fort McNair is underlain by the Patuxent Aquifer and generally occurs at a depth of 6 to 10 ft. Excavations deeper than 10 ft generally require continuous dewatering due to infiltration of groundwater. Groundwater is not used as a water supply for Fort McNair (FMMC 2003). Potable water is supplied by the District of Columbia Water and Sewer Authority (DC Water) (Directorate of Environmental Management [DEM]-JBM-HH 2011).

3.3.2 Surface Water

Fort Myer and Henderson Hall are located approximately 2 miles west of the Potomac River, and Fort McNair is located at the confluence of the Washington Channel of the Potomac River and the Anacostia River.

Fort Myer and Henderson Hall

An unnamed tributary runs along the southwestern boundary of Fort Myer and Henderson Hall, and drains into the Potomac River via Long Branch Creek a tributary of Four Mile Run which flows into the Potomac River south of Ronald Reagan Washington National Airport (FMMC 2002).

Fort McNair

There are no streams or waterways within Fort McNair. In the 19th century, the James Creek, a natural water body, later known as the James Creek Canal, flowed north-south along the eastern edge of Fort McNair before emptying into the Anacostia River further south. Before its closure and filling in the early 1900s, the canal served as part of the District of Columbia sewage system, discharging sewage from the District to the Anacostia River [U.S. Army Corps of Engineers (USACE) 2003].

The Washington Channel of the Potomac River which drains the Tidal Basin, a man-made inlet adjacent to the Potomac River in Washington, D.C., forms the western edge of Fort McNair. The Anacostia River flows along portions of the eastern and southern edge of Fort McNair before draining into the Potomac River. The two rivers are primary resources in the Washington area, used for both commerce and recreation (USACE 2003).

3.3.3 Water Use Classifications

Designated use classifications for the Anacostia River within Washington, D.C. include: primary contact recreation (e.g., swimming); secondary contact recreation (e.g., boating) and aesthetic enjoyment; protection and propagation of fish, shellfish, and wildlife; and protection of human health related to consumption of fish and shellfish and navigation. At present the Anacostia River does not meet the water quality standards for primary contact recreation (swimming) and is considered impaired.

The jurisdictional boundary of Washington, D.C. encompasses the Potomac River to Virginia shoreline including the portion adjacent to Arlington County and, as a result, the Potomac River designated use classifications are determined by Washington, D.C. Designated uses for the Potomac River within the area encompassing the installations that comprise JBM-HH are similar to those of the Anacostia River and it is also considered impaired for primary contact recreation (DC Department of Health [DCHealth] 2004).

3.3.4 Water Quality

The Clean Water Act (CWA) and the Safe Drinking Water Act regulate water quality at the federal level. Section 303(d) of the CWA requires states to identify and develop a list of

waterbodies that are impaired and for which technology-based and other required controls have not resulted in attainment of water quality standards. A water quality standard is the combination of a designated use for a particular body of water and the water quality criteria designed to protect that use. The development of Total Maximum Daily Load (TMDL) is established to achieve and maintain water quality standards and is required for waterbodies that are included on the 303(d) list. Both the Potomac and Anacostia rivers in the vicinity of Fort McNair are included on the 303(d) list of impaired waters; TMDLs have been developed for the Potomac River [Polychlorinated biphenyls (PCBs) and fecal coliform] and Anacostia River (fecal bacteria, sediment, PCBs, nutrients, and trash), and the Washington Channel of the Potomac River (pH, organics). A TMDL for fecal coliform has been developed for Four Mile Run in Arlington County, Virginia (District Department of the Environment [DDOE] 2011a; Virginia Department of Environmental Quality [VDEQ] 2011a). The Chesapeake Bay TMDL was finalized in 2010 and is discussed in Section 3.3.5, *Watershed Implementation Plans*.

Water quality standards in the District of Columbia are developed under the authority of the CWA and the District of Columbia Water Pollution Control Act of 1984. In addition, the U.S. Army's administrative publication, DA PAM 200-1, *Environmental Protection and Enhancement*, requires installations to conserve all water sources and protect them from contamination by developing and implementing plans to ensure a level of water quality that support and are consistent with state-designated uses.

Urban runoff, toxic spills, agriculture runoff, sediment transport, sewer overflows, and industrial operations affect the water quality within the watersheds for both rivers. The Potomac River continues to improve as a result of combined sewer outfall improvements and implementation of improvements and biological nutrient removal at the Blue Plains wastewater treatment plant located on the Potomac River approximately 4 miles southeast of Fort Myer and Henderson Hall and 3.0 miles south of Fort McNair.

The water quality of the Anacostia River is improving as a result of the Anacostia Watershed Restoration Agreement signed in 1987 and 2001 by the Mayor of the District of Columbia and the Governor of Maryland (Anacostia River Watershed Restoration Partnership 2010).

3.3.5 Watershed Implementation Plans

The Chesapeake Bay TMDL was established in 2010 pursuant to Section 117(g)(1) of the CWA and EO 13508, *Chesapeake Bay Protection and Restoration*, to restore the waters of the Chesapeake Bay and the region's streams, creeks, and rivers, and to address nutrients and sediment impairments. As a response, six states (including Virginia) and Washington, D.C. (the District) have prepared Phase I Watershed Implementation Plans (WIPs), Phase I in order to establish a framework for guiding water quality restoration efforts. The WIPs outline procedures that the states and Washington, D.C. will follow for nutrient and sediment load reduction necessary to achieve TMDLs, which the U.S. EPA refers to as a "pollution diet." Under the Chesapeake Bay TMDL, the states and Washington, D.C. are required to identify and commit to pollution reduction regulations in 2-year milestones.

Virginia and the District have both released a Phase I WIP establishing criteria and procedures to achieve TMDL reduction. Phase II WIPs have been completed by both jurisdictions as of

981 30 March 2012 (DDOE 2012; Virginia Department of Conservation and Recreation [VDCR]
982 2012). The Phase II WIPs provide strategies needed in order to achieve 60 percent reduction of
983 TMDLs by 2025 and provide a smaller scale breakdown of load allocation, either to small
984 geographical areas or specific facilities.

985 ***Virginia WIP***

986 Federal facilities inclusive of JBM-HH would be expected to comply with WIP regulations.
987 Virginia views federal facilities as partners in implementing and meeting the WIP regulations
988 and goals, as well as meeting the goals for the Energy Independence and Security Act (EISA)
989 (Section 438) requiring stormwater management in all federal facilities. In accordance with the
990 WIP, federal facilities are recommended to implement the following regulations: control of
991 nitrogen air pollution; and development, implementation, and enforcement of the municipal
992 separate storm sewer system (MS4) program. The MS4 program regulates publicly owned
993 (state, county, municipality, etc.) conveyance systems for stormwater discharge including: illicit
994 discharge detection and elimination, construction site stormwater runoff control, post-
995 construction stormwater management in new development and redevelopment, to protect water
996 quality in nearby streams, rivers, and wetlands. JBM-HH maintains a valid MS4 permit that
997 requires contractors to comply with the Installation's permit before initiating construction or
998 demolition activities, and it requires submission of an erosion and sediment control plan when
999 one or more acre of ground is to be disturbed.

1000 Virginia Stormwater Management Program permit requirements require the construction site
1001 owner/operator to secure a Virginia Stormwater Management Program general permit for
1002 discharges of stormwater from construction activities for construction activities of 1 acre or
1003 more, or equal to or greater than 2,500 square feet (ft²), or areas designated by the local
1004 government for protection under the Chesapeake Bay Preservation Act. The Chesapeake Bay
1005 Preservation Act further requires BMPs to be implemented and developed, as well as the
1006 implementation of a site-specific stormwater pollution prevention plan (SWPPP). The SWPPP
1007 outlines the steps and techniques to comply with regulations and the conditions of the permit to
1008 reduce pollutants in the stormwater runoff from the construction site. Consistent with
1009 Presidential EO 13508, EISA, and to meet TMDLs, the Virginia Commonwealth is expecting
1010 federal facilities to make efforts to implement WIP strategies in order to achieve reductions in
1011 nutrient and sediment loading.

1012 ***Washington, D.C. WIP***

1013 Washington, D.C. anticipates that federal facilities inclusive of Fort McNair will adhere to
1014 strategies and procedures of the WIP in partnership. The District views federal facilities as
1015 partners in implementing and meeting the WIP regulations and goals, as well as meeting the
1016 goals for the EISA (Section 438) requiring stormwater management in all federal facilities. The
1017 WIP suggests that federal facilities in Washington, D.C implement the following regulations: use
1018 green infrastructure; construct 408,000 ft² of green roofs in federal facilities; increase tree
1019 canopy cover from 35 to 40 percent throughout the District by 2035; use of LID in accordance
1020 with EISA to implement stormwater controls on all federal facilities; implement programs to
1021 control discharge; reduce nonpoint source pollution (18 percent reduction of total nitrogen,
1022 44 percent reduction of total phosphorus, and 47 percent reduction in sediment load).

3.3.6 Water Permits

As mandated by the CWA and EPA Phase I and Phase II stormwater regulations, VDCR issues permits to dischargers of stormwater from industrial activities (including construction) and MS4 under the Virginia Pollutant Discharge Elimination System (VPDES) Program. The VPDES Phase I permit program historically governed any construction activity including clearing, grading, and excavation activities, except for operations of less than 5 acres that are not a part of a larger development or sale. The Phase II VPDES permit expands permit coverage to stormwater discharges from construction activities affecting more than 2,500 ft² and located within the Chesapeake Bay Preservation Area.

VDEQ, Virginia Department of Health, the state Water Control Board, EPA, and USACE regulate water resources and water pollution in Virginia and administer programs created by the CWA, the Federal Water Quality Act, and a 1984 amendment to RCRA. When construction is planned within Fort Myer or Henderson Hall, permits may have to be obtained from the state if the facility to be constructed and operated will generate pollutants, has the potential to be hazardous, involves dredging or filling of waterways, or includes surface water or groundwater withdrawal.

The Virginia Water Protection Permit program regulates dredge, fill, and excavation activities and surface water withdrawals in state waters, including wetlands. This program also serves as Virginia's CWA Section 401 certification program for Federal Section 404 permits. Under the CWA, an applicant applying for a federal license or permit in any activity that may result in a discharge into navigable waters must obtain a certification from the state that the discharge will not adversely affect water quality.

USACE, under Section 404 of the CWA and Section 10 of the Rivers and Harbors Act, issues general or regional permits for specific activities involving fill that will have minimal adverse effects. An individual Section 404 permit will not be required for activities covered by a general permit as long as the applicant is in compliance with the requirements and standards.

For Fort Myer and Henderson Hall, JBM-HH maintains a valid VPDES MS4 permit. At Fort McNair permits and approval must be obtained from DC Water prior to performing any work that directly or indirectly affects the public water or sewage system.

3.3.7 Stormwater Management

Fort Myer and Henderson Hall

The Fort Myer stormwater drainage system conveys runoff to the Potomac River. The southern portion conveys runoff through storm drainage along Arlington Boulevard, ultimately draining into the Potomac River off the Installation. The storm sewer receives a considerable quantity of surface water drainage from Fort Myer during storm events. Fort Myer implements Stormwater and Pollution Discharge Programs. At Henderson Hall, surface stormwater from the eastern portion of the property flows toward an 18-inch (in.) drain system located near Southgate Road. The remainder of the property drains toward the southwest, which has had a record of flooding events dating to 1953, to a 72-in. culvert running through the visitor parking lot. In the 1970s, the parking lot at Henderson Hall was designed as a regional flood control structure for

managing 100-year frequency storm events under the Northern Virginia Regional Commission's Four Mile Run Runoff Management Program. An informal cooperative agreement between Henderson Hall and Arlington County has designated the area around the culvert for stormwater detainment (NFECW 2006). Approval was granted for the construction of a 72-in. storm drain that redirects Long Branch Creek. The 72-in. culvert is fed by a concrete stilling basin located in the parking lot. A relief riser at the base of a retaining wall, at the edge of the parking lot, helps handle overflow within the basin. The line flows into an outfall system beneath Washington Boulevard and Columbia Pike that empties into Four Mile Run.

During construction, Arlington County stormwater management regulations apply to Fort Myer. Current County regulations require stormwater detention at all redevelopment sites, and specify that stormwater may be released from the sites only at pre-development rates. These regulations require a 10 percent decrease in nonpoint source pollutants as indicated by phosphorous concentrations, measured in pounds per year (FMMC 2002).

Fort McNair

The stormwater drainage system at Fort McNair conveys runoff directly into Washington Channel and the Anacostia River via inlets and pipes. The current drainage system is considered adequate; however, minor flooding occurs as a result of the storm drain system's inability to accommodate runoff from impervious surfaces. Multiple storm drains are located in the northern section of the Installation (between P Street SW at the north and B Street), some of which discharge directly into the Washington Channel and are affected by tidal action, which can often block the end of pipes with floating debris (U.S. Army Military District of Washington [USMDC] 1995). Other pipes west of 3rd Avenue drain to a city storm drain and eventually drain into the Anacostia River (1995).

3.3.8 Floodplains

EO 11988, *Floodplain Management*, directs all federal agencies to avoid both long- and short-term adverse effects associated with occupancy, modification, and development in the 100-year floodplain, when possible. In the EO, floodplains are defined as "the lowland and relatively flat areas joining inland and coastal waters including flood prone areas of offshore islands, including a minimum, that area subject to a one percent greater chance of flooding in any given year."

Fort Myer and Henderson Hall

The majority of the installation lies outside the 100-year floodplain. Only the southwest portion of Henderson Hall lies within the 100-year floodplain (NFECW 2006). The floodplain is presented on Figure 10.

Fort McNair

Fort McNair is at an elevation of 10 ft msl, and because the Federal Emergency Management Agency (FEMA) has determined that flood elevations are at the 11-ft elevation, FEMA has recommended that the 10-ft contour be used to define the 100-year storm at Fort McNair, which reduces the acreage of the floodplain at Fort McNair from 22.5 to 11.7 acres (DEM-JBM-HH 2011). There are also areas of shallow flooding in the 500-year floodplain (USACE 2003). The

100-year floodplain and areas of shallow flooding are presented on Figure 11. The extensive presence of the floodplain and the low-lying topography of Fort McNair act as a constraint to development.

3.3.9 Chesapeake Bay Program

The EPA Chesapeake Bay Program is a unique regional partnership that has led and directed the restoration of the Chesapeake Bay and its tributaries since 1983. Members of the partnership include Washington, D.C., Maryland, Pennsylvania, and Virginia; the Chesapeake Bay Commission, a tri-state legislative body; EPA, representing the federal government; and participating citizen advisory groups. The DDOE is the Washington, D.C. agency responsible for carrying out program activities related to the Chesapeake Bay, and in Virginia the VDEQ is the lead agency for the Chesapeake Bay Program.

The Potomac River ultimately drains into the Chesapeake Bay, and as a result, management of water resources is guided by five Chesapeake Bay agreements: (1) the Chesapeake Bay Agreement of 1987; (2) the Cooperative Agreement between DoD and EPA Concerning Chesapeake Bay Activities; (3) the Agreement of Federal Agencies on Ecosystem Management in the Chesapeake Bay; (4) the Federal Agencies Chesapeake Unified Plan; and (5) *Chesapeake 2000*. These agreements consolidate existing regulatory requirements and provide supplementary policy and guidance addressing unregulated, but ecologically significant management considerations, such as the establishment of adequate vegetated cover, protection of wetlands, and control of stormwater runoff with the ultimate goals of improving water quality and the protection and restoration of the Chesapeake Bay aquatic resources.

The Virginia Chesapeake Bay Preservation Act was enacted by the Virginia General Assembly to protect the Chesapeake Bay from further degradation from nonpoint source pollution and sedimentation in response to the 1987 Chesapeake Bay Agreement. Under the Virginia Chesapeake Bay Preservation Act, Arlington County adopted a Chesapeake Bay Preservation Ordinance that designates Resource Protection Areas (RPAs) and Resource Management Areas (RMAs). RPAs are regulatory zones along streams protected from most forms of development to preserve their function as biological filters and buffers. Areas designated as RPAs include tidal wetlands, tidal shores, tributaries, streams, and rivers, and a minimum 100-ft buffer surrounding these areas.

Several RPAs are designated within the boundaries of Fort Myer and Henderson Hall. An RPA straddles the southern Henderson Hall boundary, another is located along the southwestern border of Fort Myer and Henderson Hall, and a third is located in the northwestern portion of Fort Myer near the Installation boundary and Jackson Avenue (Figure 10). Together the RPAs encompass approximately 7 acres (NFECW 2006). Because RPAs are designated under state regulations, there are no designated RPAs for areas within the boundaries of Washington, D.C., and consequently there are no RPAs designated at Fort McNair.

3.3.10 Coastal Zone Management Act

The Coastal Zone Management Act of 1972 (16 United States Code § 1451, et seq., as amended) was enacted by Congress to encourage states to protect, preserve, develop, and when possible,

1142 restore or enhance valuable natural coastal resources. The Coastal Zone Management Act
1143 contains a federal consistency requirement, by which federal actions must be consistent to the
1144 maximum extent practicable with the enforceable policies of the federally approved Virginia
1145 Coastal Resources Management Program and is applicable to actions at Fort Myer and
1146 Henderson Hall. The Virginia Coastal Resources Management Program was established to
1147 protect and manage Virginia's "coastal zone," also referred to as "Tidewater Virginia." This
1148 program focuses on problems associated with polluted runoff, habitat protection, riparian buffers,
1149 RPAs, wetlands, fisheries, sustainable development, waterfront redevelopment and
1150 encroachment, septic systems, erosion and sediment control, and air pollution control. Activities
1151 associated with watershed management include improving stormwater management practices,
1152 maintaining vegetated buffers along riparian areas, stabilizing shorelines, and educating
1153 developers on environmentally sensitive design.

1154 **3.3.11 Environmental Consequences of the Alternatives on Water Resources**

1155 **3.3.11.1 Alternative 1 – No Action**

1156 No impacts to groundwater from withdrawals occur under Alternative 1 within JBM-HH.
1157 Groundwater recharge would not be discernibly affected by the additional impervious surface
1158 resulting from development under Alternative 1 because of depth of the existing aquifers and the
1159 small amount of new construction.

1160 Few surface water resources are located on Fort Myer and Henderson Hall, and direct impacts to
1161 surface water resources would be negligible as a result of Alternative 1. Stormwater runoff from
1162 construction and renovation sites could convey sediment and pollutants from areas of
1163 construction including road widening and realignments to tributaries at Henderson Hall and Fort
1164 Myer. Likewise, Fort McNair's proximity to the Potomac and Anacostia rivers could result in
1165 impacts from sediment and pollutants entering the rivers as a result of stormwater runoff. The
1166 use of BMPs such as silt fencing, storm drain protection mechanisms, geotextile fabrics, dust
1167 control, etc. would reduce the amount of stormwater entering surface waters in proximity to any
1168 construction activities on the installations comprising JBM-HH. Development of an SWPPP
1169 would be required.

1170 Flooding related to storm events would continue to occur in the visitor's parking area at
1171 Henderson Hall. The flood control structure would provide a means of conveyance for the flood
1172 waters; however, untreated stormwater runoff from the parking area, adjacent developed areas,
1173 and adjacent new construction could convey sediments and pollutants such as petroleum residues
1174 from the parking area to the unnamed tributary and potentially to Four Mile Run. BMPs in place
1175 at construction sites would minimize flood-related water quality impacts to the un-named
1176 tributary and Four Mile Run. Because of the distance of Fort Myer and Henderson Hall (2 miles)
1177 from the Potomac River, it would be unlikely that any impact to the Potomac River from
1178 construction and renovation activities at the site would occur.

1179 No dredging or filling activities would be associated with projects under Alternative I. As a
1180 result, no impacts would be expected to water resources from either activity.

Because JBM-HH lies within the Coastal Zone of Virginia, all activities have the potential to affect the Coastal Zone. To the extent feasible, implemented projects would be planned and designed to avoid sensitive areas and would be consistent with the Coastal Zone Management Program (CZMP). A Coastal Zone Management Act consistency determination would be required on a project by project basis. Development would avoid RPAs on Fort Myer and Henderson Hall; however, if encroachment into an RPA was found to be unavoidable, permits would be required.

3.3.11.2 Alternative 2 – Implementation of the RPMP

As stated above for Alternative 1, groundwater resources for JBM-HH likely would not be affected because of aquifer depth and the fact that no groundwater withdrawal would be proposed. Likewise, areas within the 100-year floodplain and designated RPAs as presented in Figures 10 and 11 would constrain development and would be avoided. Development would avoid RPAs on Fort Myer and Henderson Hall; however, if encroachment into an RPA was found to be unavoidable, permits would be required. Impacts from the implementation of Alternative 2 would primarily be associated with activities related to ground clearing and disturbance associated with new construction and the potential for stormwater runoff from construction areas. Development proposed under Alternative 2 would permanently increase the amount of impervious surface where road widening and permanent footprints of facilities would be located. The incorporation of BMPs, especially stormwater controls, would minimize effects to water resources resulting from the implementation of the RPMP. BMPs for erosion and sediment control for all development activities would be consistent with applicable erosion and sedimentation regulations. Development of an SWPPP and the use of silt fencing, storm drain protection mechanisms, geotextile fabrics, dust control measures, etc. would be required. Project design and planning would incorporate vertically structured parking, landscaping, and restoration of vegetation to minimize the amount of impervious surface developed as a result of Alternative 2.

As stated under Alternative 1, all activities have the potential to affect the Coastal Zone. To the extent feasible, implemented projects would be planned and designed to avoid sensitive areas and would be consistent with the CZMP. VDEQ provided concurrence that the Proposed Action is consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management Program (Appendix A). A Coastal Zone Management Act consistency determination would be required on a project-by-project basis as implemented through the RPMP.

3.3.12 Mitigation Measures

For either alternative, projects would be initiated only after environmental review has been completed and the required permits are obtained. For Fort Myer and Henderson Hall, erosion and sediment control requirements would be in accordance with requirements set forth under the Virginia Erosion and Sediment Control Law and Regulations, the Virginia Stormwater Management Law, and the Virginia Stormwater Management Program in addition to the requirements set forth under the Arlington County Code. Land-disturbing activities during construction and demolition (clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, etc.) that result in land-disturbing

activities of greater than 2,500 ft² of land are regulated by the Virginia Erosion and Sediment Control Law and Regulations. An erosion and sediment control plan would be required to ensure compliance with state law and regulations. Land-disturbing activities would also require a Virginia Stormwater Management Program Permit and a Stormwater Pollution Prevention Plan. A Coastal Zone Management Act consistency determination would be required for individual projects implemented under the RPMP. Fort McNair would be required to comply with erosion and sediment control requirements in accordance with the District of Columbia Municipal Regulations.

Implementation of mitigation measures for any alternative would minimize adverse effects of project construction and development actions on water resources. Mitigation that could be employed to protect water resources include storm sewer lines and stormwater management facilities planned, as necessary, into new construction, and identification of candidate locations for the removal of existing impervious surfaces and the use of pervious paving techniques. Stormwater management controls for implemented projects should replicate and maintain the hydrographic condition of the site prior to construction. Projects would comply with erosion and sediment controls during ground disturbance. Stormwater management for developed projects would meet EISA requirements for energy savings, and water conservation to the extent practicable.

Stormwater quality control would be required for Fort McNair due to its proximity to the Potomac River. Quality control typically consists of providing treatment through the use of water quality BMPs and LID technology. Typical stormwater management BMPs and LID technologies would include bioretention areas, sand filters, or certain proprietary devices.

Areas that lie within the 100-year floodplain in Fort McNair and Henderson Hall should be avoided where possible. If avoidance is not possible, field review should be performed to determine the type of encroachment permitted (habitable structures would not be permitted).

3.4 BIOLOGICAL RESOURCES

In general, the region surrounding the installations of JBM-HH consists of highly urbanized land use primarily comprised of commercial, federal, residential, and mixed use with small parks and open spaces. Most of Arlington County and Washington, D.C. are covered by impervious surfaces (streets, buildings, and parking lots), and the area has few natural resources.

3.4.1 Vegetation

JBM-HH

Most native vegetation at the installations comprising JBM-HH has been removed as a result of prior development and past training activities. Vegetation found within the installations consists of landscaped ornamental trees, shrubs, and grasses. Small, scattered wooded areas that contain native tree species such as red and silver maple (*Acer rubrum* and *A. dasycarpum*, respectively), white and northern red oak (*Quercus alba* and *Q. borealis*), American sycamore (*Plantanus occidentalis*), tulip poplar (*Liriodendron tulipifera*), and black cherry (*Prunus serotina*) are found on portions of the Installation. Common grasses include Kentucky bluegrass (*Poa pratensis*),

1262 red fescue (*Festuca rubra*), perennial rye grass (*Lolium perenne*), zoysia grass (*Zoysia matrena*),
1263 and Bermuda grass (*Cynodon dactylon*) maintained as turf.

1264 Tree surveys were conducted at Fort McNair in 2009 and Fort Myer and Henderson Hall in
1265 2010. Approximately 4,500 trees were recorded along with information on species, condition,
1266 and size. Common tree plantings include native species such as red maple, willow oak (*Quercus*
1267 *phellos*), and eastern red cedar (*Juniperus virginiana*) (USMDC 1995).

1268 Vegetation on Fort McNair consists almost exclusively of landscaped trees and grasses similar
1269 to those found on Fort Myer but also contains Norway maple (*Acer platanoides*), sugar maple
1270 (*A. saccharum*), American elm (*Ulmus americana*), pin oak (*Q. palustris*), and northern red oak
1271 as well as littleleaf linden (*Tilia cordata*). Non-native landscape species include Yoshino cherry
1272 (*Prunus yedoensis*) and Japanese pagoda tree (*Sophora japonica*) (NFECW 2006).

1273 An agreement with the Virginia State Historic Preservation Office (SHPO) stipulated a small
1274 park be planted with native plant species in the area where an historic structure was demolished
1275 at Fort Myer. Additional native vegetation can be found in the form of scattered wooded areas
1276 along the installations' periphery. Native trees include white oak, northern red oak, silver
1277 maple, American sycamore (*Platanus occidentalis*), tulip poplar, and black cherry (FMMC 2002;
1278 USACE 2003; NFECW 2006).

1279 Invasive plant species identified at Fort McNair include wild garlic (*Allium vineale*), wild onion
1280 (*A. canadense*), common chickweed (*Stellaria media*), crabgrass (*Digitaria* sp.), buttercups
1281 (*Ranunculus* sp.), and ground ivy (*Glechoma hederacea*) (NFECW 2006). Similar invasive plant
1282 species are assumed to occur at Fort Myer and Henderson Hall. Herbicide treatments are used to
1283 manage invasive plant species through Integrated Pest Management Plans for JBM-HH.

1284 **3.4.1.1 Environmental Consequences of the Alternatives on Vegetation**

1285 **3.4.1.1.1 Alternative 1 – No Action**

1286 Alternative 1 would result in disturbance to vegetation in areas of new construction, roadway
1287 widening and realignment, as well as within any construction staging or demolition staging
1288 areas, using planted areas. Permanent loss of vegetation would occur in areas where new
1289 construction footprints or roadway footprints would be located. Areas that would be temporarily
1290 disturbed would be re-planted, and when complete, new construction developments would be
1291 landscaped and compatible with the surrounding landscape. Native plant species would be used
1292 where appropriate.

1293 **3.4.1.1.2 Alternative 2 – Implementation of the RPMP**

1294 Alternative 2 implements the RPMP, and in comparison with Alternative 1, would result in
1295 additional development of new facilities and a potential increase in the amount of vegetation
1296 temporarily disturbed or permanently lost under building and roadway footprints for all the
1297 installations comprising JBM-HH. Once completed, projects would be landscaped and
1298 vegetation would be compatible with the surrounding landscape, and native plant species would
1299 be used where appropriate. Because of the urban landscaping context of the installations

1300 comprising JBM-HH, restoration or enhancement of vegetation on the installations would be
1301 beneficial.

1302 As an urban installation JBM-HH has limited green space. Alternative 2 would preserve existing
1303 open space at Fort Myer and Henderson Hall, and would maintain the Parade Ground as well as
1304 the south and southwest point of Fort McNair as passive use green space. New and existing
1305 recreational fields and improved pedestrian networks within the installations comprising JBM-
1306 HH would also add to open space. Incorporation of LID principles for stormwater retention
1307 using vegetated swales would also provide opportunities for vegetated green space.

1308 **3.4.1.2 Mitigation Measures**

1309 Projects would be initiated only after the environmental review has been completed and the
1310 required permits are obtained.

1311 Planning and design of final projects should maintain the historic landscape patterns and should
1312 attempt to offset vegetation loss with open space development in other areas of the installations
1313 as exemplified by the SHPO agreement at Fort Myer discussed in Section 3.4.1, *Vegetation*,
1314 above. Restoration plantings should use compatible plant species that fit the historic landscape,
1315 especially at Fort McNair where historic plantings of little-leaf linden trees and ornamental
1316 flowering trees occur; however, as much as possible, native species should be used.

1317 When trees are moved, replacement trees should be planted consistent with the species lost; for
1318 trees over 4-in. diameter, tree replacement should occur at a 2:1 ratio, which is a common tree
1319 replacement policy. Management of invasive plant species should be implemented to prevent
1320 species from encroaching into areas disturbed by construction activities and should continue as
1321 guided by the Installation's Integrated Pest Management Plans.

1322 **3.4.2 Wetlands**

1323 Waters of the United States include all waters used, past or present, or susceptible to use, in
1324 interstate or foreign commerce, including tidal waters. They also include all interstate and
1325 intrastate waters, and tributaries to such waters, the sea, and wetlands adjacent to these waters as
1326 defined by 40 CFR 230.3, 2002. Wetlands are jointly defined by EPA and USACE as "those
1327 areas that are inundated or saturated by surface or groundwater at a frequency and duration
1328 sufficient to support, and that under normal circumstances, do support a prevalence of vegetation
1329 typically adapted to life in saturated soil conditions" (40 CFR 230.3, 2002 and 33 CFR 328.3,
1330 2002). USACE is responsible for implementing the Section 404 regulatory program, while EPA
1331 has final authority over the CWA.

1332 Proposed development activities within Waters of the United States, including jurisdictional
1333 wetlands, are regulated under Section 404 of the CWA. Executive Order 11990, *Protection of*
1334 *Wetlands*, provides for the protection of wetlands from short- and long-term impacts associated
1335 with the destruction or modification of wetlands from the direct or indirect impacts of
1336 construction in wetlands, wherever there is a practicable alternative, and ensures that proposed
1337 construction incorporates all possible measures to limit harm to the wetland. The DoD policy is
1338 one of no net loss of wetlands.

1339 **Fort Myer and Henderson Hall**

1340 Approximately 1.15 acres of wetlands were identified in three separate areas on Fort Myer and
1341 are contained within designated RPAs (Figure 10). The largest wetland area is a palustrine-
1342 forested wetland of approximately 1.05 acres located within the floodplain of an intermittent
1343 stream in the southwest corner of the Installation. The two remaining wetlands comprise
1344 approximately 0.1 acres (FMMC 2002). The wetland/RPAs of Fort Myer result in constraints to
1345 development in those areas.

1346 There are no wetlands associated with the RPA on Henderson Hall (USACE 2003).

1347 **Fort McNair**

1348 No wetlands are located on Fort McNair (USACE 2003; NFECW 2006).

1349 **3.4.2.1 Environmental Consequences of the Alternatives on Wetlands**

1350 **3.4.2.1.1 Alternative 1 – No Action**

1351 Because the wetlands/RPAs at Fort Myer are constraints to development, Alternative 1 avoids
1352 development in the wetlands, and as a result, no impacts are anticipated to occur. If construction
1353 activity becomes necessary within identified wetlands at Fort Myer, mitigation measures as
1354 outlined in Section 3.4.2.2, *Mitigation Measures*, would provide compensation for wetlands. No
1355 wetlands occur at Henderson Hall or Fort McNair; therefore, there would be no impacts to
1356 wetlands at either installation.

1357 **3.4.2.1.2 Alternative 2 – Implementation of the RPMP**

1358 Similar to Alternative 1, the wetlands/RPAs at Fort Myer are constraints to development under
1359 the implementation of the RPMP for Alternative 2. Projects would be expected to avoid the
1360 wetlands/RPAs, and as a result, no impacts are anticipated; however, if construction activity
1361 becomes necessary within identified wetlands at Fort Myer, mitigation measures as outlined in
1362 Section 3.4.2.2, *Mitigation Measures*, would provide compensation for wetlands. No wetlands
1363 occur at Henderson Hall or Fort McNair; therefore, there would be no impacts to wetlands at
1364 either installation.

1365 **3.4.2.2 Mitigation Measures**

1366 Projects would be initiated only after the environmental review has been completed and the
1367 required permits are obtained. Construction activities would be planned to comply with general
1368 performance criteria found in the Chesapeake Bay Preservation Area regulations as they apply to
1369 RPAs and RMAs. Permitting required as discussed under Section 3.3, *Water Resources*, would
1370 protect wetlands. A CWA Section 404 (b)(1) wetland permit, Virginia Water Protection Permit,
1371 and subaqueous lands permits, as well as other permits determined necessary through
1372 consultation with applicable agencies, could be required. Project planning and design would
1373 avoid wetlands/RPAs to the extent possible.

1374 If construction or mitigation of stormwater impacts occurs in the vicinity of the unnamed
1375 tributary on Henderson Hall, removal of vegetation should be avoided to the extent practicable.
1376 Barren areas would be revegetated with native plant species. A mitigation plan should be
1377 prepared if any development is planned.

1378 Mitigation such as wetland banking or wetland restoration would be required as a permit
1379 condition. The DoD and Department of the Army are signatory partners in the Chesapeake Bay
1380 Program. The Chesapeake Bay Program's agreement, *Chesapeake 2000*, calls for signatories to
1381 restore an overall total of 25,000 acres of tidal and nontidal wetlands by 2010 (average of
1382 2,500 acres per year by 2005) within the Chesapeake Bay basin. In compliance with the DoD
1383 policy of "no net loss" of wetlands, contributions to the Virginia Aquatic Resources Trust Fund
1384 could occur as necessary and applicable for future projects; however, wetland credit approval
1385 takes several months and must be coordinated with the state and EPA.

1386 Ideas from the *Monumental Core Framework Plan* (NCPC 2009) which promotes the
1387 development of a marshy riparian edge along the western edge of Fort McNair (within the
1388 Washington Channel) could be considered in future development at Fort McNair as feasible.

1389 **3.4.3 Wildlife Resources**

1390 **JBM-HH**

1391 Wildlife found within the installations comprising JBM-HH generally consists of those species
1392 adapted to urban environments including squirrels, chipmunks, rabbits, raccoons, snakes, and
1393 birds. Red foxes (*Vulpes vulpes*) have occasionally been observed. During migration, migratory
1394 birds including Neotropical migratory species (flycatchers, vireos, warblers, tanagers) may use
1395 the small wooded area near Fort Myer's boundary with ANC, but the small size of this area
1396 precludes most from nesting. Fort McNair's close proximity to the Washington Channel and the
1397 Potomac and Anacostia rivers has encouraged birds such as gulls (*Larus* spp.), Canada geese
1398 (*Branta canadensis*), and great blue herons (*Ardea herodias*) to use the installation as a foraging
1399 and resting area (FMMC 2002; USACE 2003; NFECW 2006). The bald eagle (*Haliaeetus*
1400 *leucocephalus*), formerly a federally listed species that was delisted by the U.S. Fish and
1401 Wildlife Service (USFWS) in 2008, maintains a status of threatened in Virginia. Bald eagles
1402 have been observed along the Potomac River in the vicinity of Fort McNair and are well
1403 documented and established year-round residents of the Potomac River (Watts and Byrd 2011).

1404 Common pests present on the base include numerous insects, rodents, and birds such as starlings
1405 (*Sturnus vulgaris*) and pigeons (*Columba livia*). Fort Myer has an Integrated Pest Management
1406 Program that uses inspections, sanitation, and various mechanical control procedures, such as
1407 trapping and elimination of weedy areas that provide shelter to manage pest species.

1408 **Threatened and Endangered Species**

1409 The Endangered Species Act (ESA) provides legal protection to species listed as endangered or
1410 threatened, including their habitats. Based on record searches, there are no known federal-listed
1411 endangered or threatened species or habitat at Fort Myer, Henderson Hall, or Fort McNair (Fort
1412 Myer-Henderson Hall [FM-HH] 2010; Fort McNair [FM] 2010). USFWS has confirmed that

there are no known federal-listed rare, threatened, or endangered species or habitat on any of the installations (USFWS 2011).

3.4.3.1 Environmental Consequences of the Alternatives on Wildlife

3.4.3.1.1 Alternative 1 – No Action

Generally, the installations do not provide a large amount of natural environment or habitat for wildlife. Instead the settings are similar to artificially landscaped and maintained urban parks. Because the installations are in highly urban areas, with ongoing and habitual daily activities, the wildlife species that are within the installation boundaries are adapted to the limited habitats provided and are also adapted to the activity levels of the individual installations comprising JBM-HH. Wildlife species in the vicinity of construction would be disturbed by additional noise and human presence associated with construction, demolition, and renovation activities and would avoid areas of activity.

The Migratory Bird Treaty Act (MBTA) protects all migratory birds and their parts (including eggs, nests, and feathers). In addition, EO 13186 requires federal agencies to ensure compliance with the MBTA, evaluate actions and agency plans on migratory birds, initiate actions to minimize the take of migratory birds, and contribute to the conservation of migratory birds. The MBTA does not prohibit or require a permit for destruction of inactive nests of most species, provided that no possession occurs. However, destruction of that results in the take of a migratory bird (e.g., a juvenile that is still dependent upon the nest) is a violation of the MBTA and prosecutable. The bald eagles are protected under the MBTA and the Bald and Golden Eagle Protection Act.

Tree removal could result in the loss of nesting habitat or, if it occurs during the nesting season, potential loss of a reproductive season for nesting bird species. Species using patches of habitat along steep slopes, streams, and within wetlands/RPAs would not be expected to be affected by activities because development would avoid these areas. Some disturbance from any activities in proximity to constrained areas could cause species to temporarily abandon the area. Migratory bird species would be similarly affected by disturbance and activity.

Bald eagles use the Potomac River including trees along the shoreline and would be expected to use trees along the south and southwestern perimeter of Fort McNair. Development activity as described above could cause a perching bald eagle to leave the area temporarily but individual eagles could return when activity ceases.

3.4.3.1.2 Alternative 2 – Implementation of the RPMP

As described for Alternative 1, impacts to wildlife would result from human presence, noise, and activities associated with development activities. However, because the RPMP would potentially implement a wider range of projects over a longer time frame, additional disturbance and habitat loss or alternation could result. Because development would focus on the demolition and re-use of already developed areas and the renovation of existing structures, loss of habitat should be negligible. Development activity as described above could result in disturbance to bald eagles in the vicinity of Fort McNair. It is expected that individual eagles could return when activity ceases.

3.4.3.2 Mitigation Measures

Projects would be initiated only after the environmental review has been completed and the required permits are obtained.

Habitat loss or alteration would be offset whenever possible by planting to restore vegetation including tree replacement and should use compatible native plant species (Section 3.4.1.2). Monitoring for establishment of invasive plant species should be implemented post-construction and in accordance with the Installation's Integrated Pest Management Plans.

Undisturbed, naturally vegetated buffers of at least 100 ft in width should be maintained around all onsite wetlands as well as perennial and intermittent streams. Wooded lots would be maintained to the extent practicable. Should tree removal or ground clearing be necessary during the nesting season, time of year restrictions to protect nesting migratory bird species would be implemented. Generally, the nesting season extends from approximately 15 March to 15 August of any given year. Coordination with the Virginia Department of Game and Inland Fisheries (VDGIF), VDCR Natural Heritage Program, and USFWS should be conducted prior to project initiation to determine if the presence of bald eagles or any other rare, threatened, or endangered species in the vicinity of a project area has changed. Should bald eagle nesting activity in proximity to Fort McNair be observed, consultation with USFWS should be conducted. The USFWS *National Bald Eagle Management Guidelines* (USFWS 2007) should be implemented based on consultation guidance and any required permits should be obtained.

To protect designated Anadromous Fish Use Areas of the Potomac River and Fourmile Run, VDGIF recommended that any instream work in the tributary adjacent to Fort Myer take place in low flow or no flow conditions with measures to isolate the construction area (e.g., non-erodible cofferdams or turbidity curtains) and blocking no more than 50 percent of the streamflow at any given time. VDGIF also recommends adherence to a time-of-year restriction from 15 February through 30 June of any year; stockpiling of excavated material in a manner that prevents re-entry into the stream, restoring streambed and streambank contours, revegetation of barren areas with native vegetation, implementing strict erosion and sediment control measures; and the installation of floodplain culverts and countersinking any culverts or the use of bottomless culverts to allow passage of aquatic organisms (VDGIF [Amy Ewing] email dated 29 August 2012).

3.5 CULTURAL RESOURCES

Cultural resources are any property including buildings, sites, structures, and objects listed or determined eligible for listing on the National Register of Historic Places (NRHP). The NRHP is the nation's inventory of historic properties of value on a state, local, or national level. It also serves as the national repository of documentation on the variety of historic property types.

As outlined and described in the JBM-HH Integrated Cultural Resource Management Plan (ICRMP) (JBM-HH 2011), a variety of federal regulations provide protection and conservation of cultural resources. The following is a list of regulations.

1491 **The National Historic Preservation Act of 1966**

1492 The National Historic Preservation Act (NHPA) of 1966 and implementing regulations, 36 CFR
1493 Part 800, is the primary federal statute that addresses the management of cultural resources. It
1494 establishes federal policy on historic preservation and provides the framework by which federal
1495 agencies take into account the effects of their undertakings on historic properties. The NHPA
1496 provides for a State Historic Preservation Officer (SHPO) appointed by the governor to oversee a
1497 state's historic preservation program and integrate it into the national program. Advisory
1498 Council on Historic Preservation (ACHP) was created to review federal actions concerning
1499 historic properties and to advise the President and Congress on historic preservation issues.
1500 Historic properties are defined as significant archeological, architectural, or traditional resources
1501 that are either eligible for listing, or listed in, the NRHP. Buildings generally must be 50 years
1502 or older in order to qualify for NRHP designation, although there are exceptions for properties
1503 with historical significance that are less than 50 years old. The primary responsibilities of
1504 federal agencies under NHPA are contained in the following sections of the NHPA:

- 1505 • **Section 106** requires that, prior to conducting activities classified as undertakings, federal
1506 agencies:
 - 1507 ○ Initiate the process, identify historic properties, identify consulting parties such as
1508 SHPO and federal Tribes, assess adverse effects, and resolve adverse effects.
 - 1509 ○ Upon determination of adverse effects consultation may include the ACHP.
- 1510 • **Section 110** affects all activities concerning historic properties under federal jurisdiction.
1511 Among other requirements, Section 110 requires federal agencies to:
 - 1512 ○ Assume responsibility for, and undertake preservation of, historic properties under
1513 their jurisdiction.
 - 1514 ○ Ensure that historic properties are adequately documented prior to engaging in
1515 alteration.
 - 1516 ○ Consider the preservation of historical and cultural values in the management of
1517 historic properties.

1518 **Archaeological and Historic Preservation Act of 1974**

1519 The Archaeological and Historic Preservation Act (AHPA) of 1974 provides for survey,
1520 recovery, preservation, and protection of scientific, prehistoric, historic, or archaeological data
1521 that may be irreparably lost as a result of any federal construction project or federally licensed
1522 project, activity, or program. The AHPA has been interpreted as providing protection for
1523 paleontological resources, which are included within the category of scientific data.

1524 **Archaeological Resources Protection Act**

1525 Provisions of the Archaeological Resources Protection Act (ARPA) establish standards for
1526 permissible excavation, as validated through a permit process, and prohibiting unauthorized
1527 excavation. Archaeological resources are sites with artifacts, structures, remains, and
1528 monuments of prehistoric and historic peoples. These sites typically require excavation in order

1529 to uncover remains and artifacts from earth that has been considerably altered by past human
1530 activities.

1531 **Native American Graves Protection and Repatriation Act**

1532 The Native American Graves Protection and Repatriation Act (NAGPRA) requires consultation
1533 with appropriate Native groups (e.g., Native Americans, Alaska Natives, Native Hawaiians) prior
1534 to excavation (either intentionally or through inadvertent discovery) of specified cultural items.

1535 **Americans With Disabilities Act of 1990**

1536 The Americans With Disabilities Act (ADA) of 1990 provides a national mandate prohibiting
1537 discrimination against disabled individuals. It defines a disabled individual as any individual
1538 having a physical or mental impairment that limits his or her life activities. This law is relative
1539 to cultural resources management because of its applicability to the preservation and protection
1540 of historic buildings and their character-defining features.

1541 **Army Regulation 200-1, Environmental Protection and Enhancement**

1542 The primary Army Regulation governing the management of cultural resources is AR 200-1, the
1543 Army's policy on environmental protection and enhancement. AR 200-1 establishes
1544 environmental quality goals to protect and conserve natural and cultural resources. Chapter 6 of
1545 AR 200-1 prescribes policies for the management of cultural resources under the jurisdiction of
1546 the Army and designates responsibilities for cultural resources management within the Army.
1547 The regulation provides general procedures required to maintain compliance with federal
1548 legislation regarding cultural resources when engaging in various Army activities and provides
1549 specific procedures to follow for the development of Programmatic Agreements and Memoranda
1550 of Agreement (MOAs).

1551 In fulfillment of Section 110, AR 200-1 chapter 6, *Cultural Resources Management*, requires
1552 each installation to produce an ICRMP. AR 200-1 also offers guidance for the development and
1553 implementation of ICRMPs. Applicable to the management of cultural resources are procedures
1554 to ensure early consideration and evaluation of the effects upon the environment resulting from
1555 any proposed action. Section 111 addresses the lease or exchange of historic properties,
1556 including stipulations to agreements to manage those properties.

1557 The ICRMP for JBM-HH provides management strategies and standard operating procedures to
1558 assist the installation with managing and maintaining archeological and historical architectural
1559 resources (JBM-HH 2011).

1560 The JBM-HH ICRMP identifies existing and potential cultural and archeological resources on
1561 the installations and provides guidance to ensure the protection and preservation of those
1562 resources. ICRMP guidelines and recommendations preserve and maintain cultural resources
1563 while ensuring that the military missions of the installations are fully supported; historic
1564 buildings and viewsheds would be maintained yet would be available for use to their maximum
1565 potential. Appendix D of the ICRMP contains the Secretary of the Interior's *Standards for the*
1566 *Protection of Historic Properties* 36 CFR 800 – amended August 2004 and Appendices H and I
1567 contain Virginia SHPO and DC Historic Preservation Office (DCHPO) guidelines, respectively.

1568 Fort Myer, Henderson Hall, and Fort McNair are located in an area that contains both prehistoric
1569 and historic archaeological and cultural resources. Cultural Resources include, but are not
1570 limited to: buildings, structures, and prehistoric and historic archeological sites.

1571 **3.5.1 Archeological Resources**

1572 **Fort Myer and Henderson Hall**

1573 Virginia SHPO lists no archaeological sites within Fort Myer and Henderson Hall. Four sites are
1574 listed adjacent to the installations: Arlington House, a nineteenth-century domestic site; small
1575 artifact scatter with prehistoric and late-nineteenth-century components; Arlington House
1576 Ravine, a nineteenth-century domestic site and Late Archaic lithic quarry; and a prehistoric site
1577 located on the property recently transferred from Fort Myer to Arlington Cemetery. The
1578 Archeological Resources Management Plan assessed the effects of ANC on site potential at Fort
1579 Myer, indicating that Fort Myer's close proximity to the Cemetery suggest archaeological
1580 resources might be present in the picnic/pasture area of Fort Myer (JBM-HH 2011).
1581 Archeological and cultural resource surveys at Fort Myer, Henderson Hall, and Fort McNair are
1582 continuing.

1583 In the vicinity of Henderson Hall there are two prehistoric sites. One is located approximately
1584 1 mile to the south on the Army-Navy Country Club grounds, and the other is located on the old
1585 Potomac Canal site, which is situated north-south along the site of the Pentagon (NFECW 2006).

1586 **Fort McNair**

1587 No archaeological sites have been recorded at Fort McNair. There is a high potential for
1588 significant historic archaeological resources from the eighteenth through the twentieth century to
1589 be present at Fort McNair, due to the extensive historic use of the land. Areas with high
1590 archaeological potential are found throughout Fort McNair, primarily in undeveloped areas due
1591 to the installation's location at the junction of the Anacostia and Potomac rivers, and there is a
1592 probability that prehistoric archaeological sites could be present (USACE 2003). Currently there
1593 is an ongoing archaeological survey at Fort McNair (Lalire 2011).

1594 **3.5.2 Architectural Resources**

1595 **Fort Myer and Henderson Hall**

1596 Fort Myer traces its land ownership to George Washington's family and its origins as a military
1597 installation to the Civil War. It became a post for the U.S. Cavalry in 1887. Most of the
1598 buildings at the north end of the Installation were built during the ensuing 22 years after
1599 becoming a post for the cavalry. The northern portion of the Installation is designated as a
1600 National Historic Landmark (NHL), the National Park Service's highest recognition (JBM-HH
1601 2011). Figure 12 presents the cultural resources of Fort Myer. There are no identified
1602 architectural resources at Henderson Hall.

1603 Fort Myer's existing Historic District is a contiguous district of housing and administrative
1604 buildings and contains some of the first permanent construction at Fort Myer, dating from the

1605 1890s. Also included in the Historic District are the horse stables built for the cavalry in the
1606 northwest corner of the Installation, also dating from the 1890s.

1607 There are a total of 91 buildings, 2 sites, and 3 objects classified as cultural resources at
1608 JBM-HH. These resources are either contributing resources to the NHL or have been
1609 recommended as contributing elements of an NHRP expanded district (JBM-HH 2011).

1610 **Fort McNair**

1611 The area bounded by the Washington Channel, Fifth Avenue, P Street, and the Anacostia River
1612 is considered the Fort McNair Historic District, eligible for listing on the NRHP in 1977 by the
1613 District of Columbia Historic Preservation Office. There are 54 buildings, 5 structures, and
1614 1 site in the Historic District, including the original location of the Washington Armory, the
1615 Army's first medical center and school, and the District of Columbia Penitentiary, which served
1616 as the location of trial and execution of the Lincoln Conspirators (JBM-HH 2011). There are a
1617 total of 37 historical objects on Fort McNair, including static displays of artillery pieces dating
1618 back to the Revolutionary War, as well as an extensive archive of original documents relating to
1619 military history (JBM-HH 2011). Figure 13 depicts the cultural resources of Fort McNair.

1620 **3.5.3 Environmental Consequences of the Alternatives on Cultural Resources**

1621 Effects of the RRMP alternatives on cultural resources are directly related to the setting of
1622 historic properties and districts adjacent to or near proposed projects. Assessment of adverse
1623 effects on cultural resources depends on the exact location of future projects and the specific
1624 design details, which may include such things as building materials, construction footprint,
1625 height of buildings, and building design. The intent of the RPMP is to preserve and enhance
1626 historic structures at JBM-HH including the historic viewsheds from within and outside of the
1627 installation. While specific project details cannot be determined until the design process is
1628 initiated, JBM-HH would determine if any listed, eligible for listing, or potentially eligible
1629 cultural or archeological resources could be adversely affected by a project, in accordance with
1630 Section 106 of the NHPA (36 CFR Part 800, Protection of Historic Properties). Fort Myer and
1631 Henderson Hall consultation would be conducted with the Virginia SHPO, and Fort McNair
1632 consultation would be conducted with the DCHPO. If adverse effects are predicted, consultation
1633 would continue with the Virginia SHPO and the DCHPO and other interested parties, as
1634 applicable, to minimize, or mitigate any adverse effects.

1635

Figure 12. Fort Myer and Henderson Hall Cultural Resource Constraints Map.

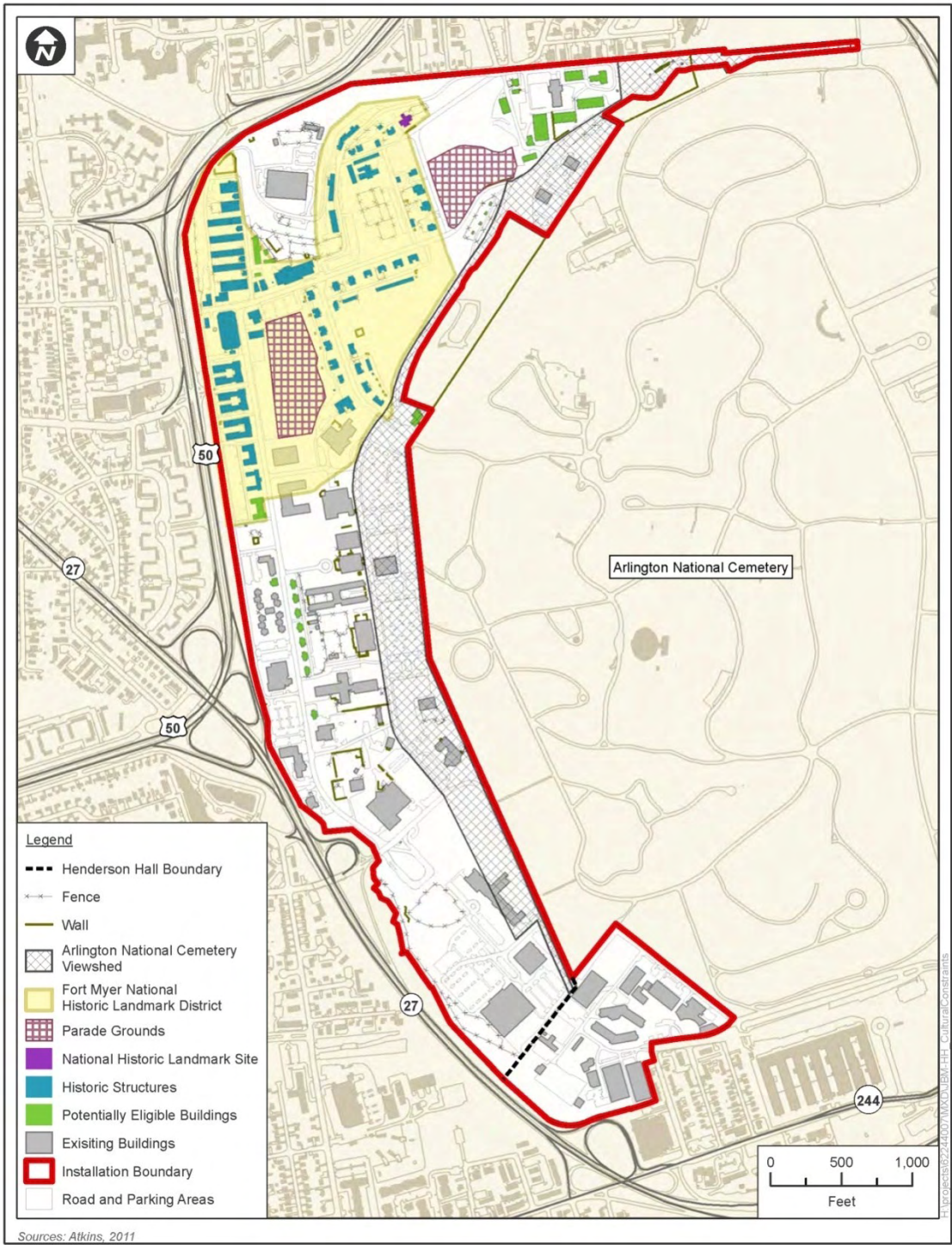
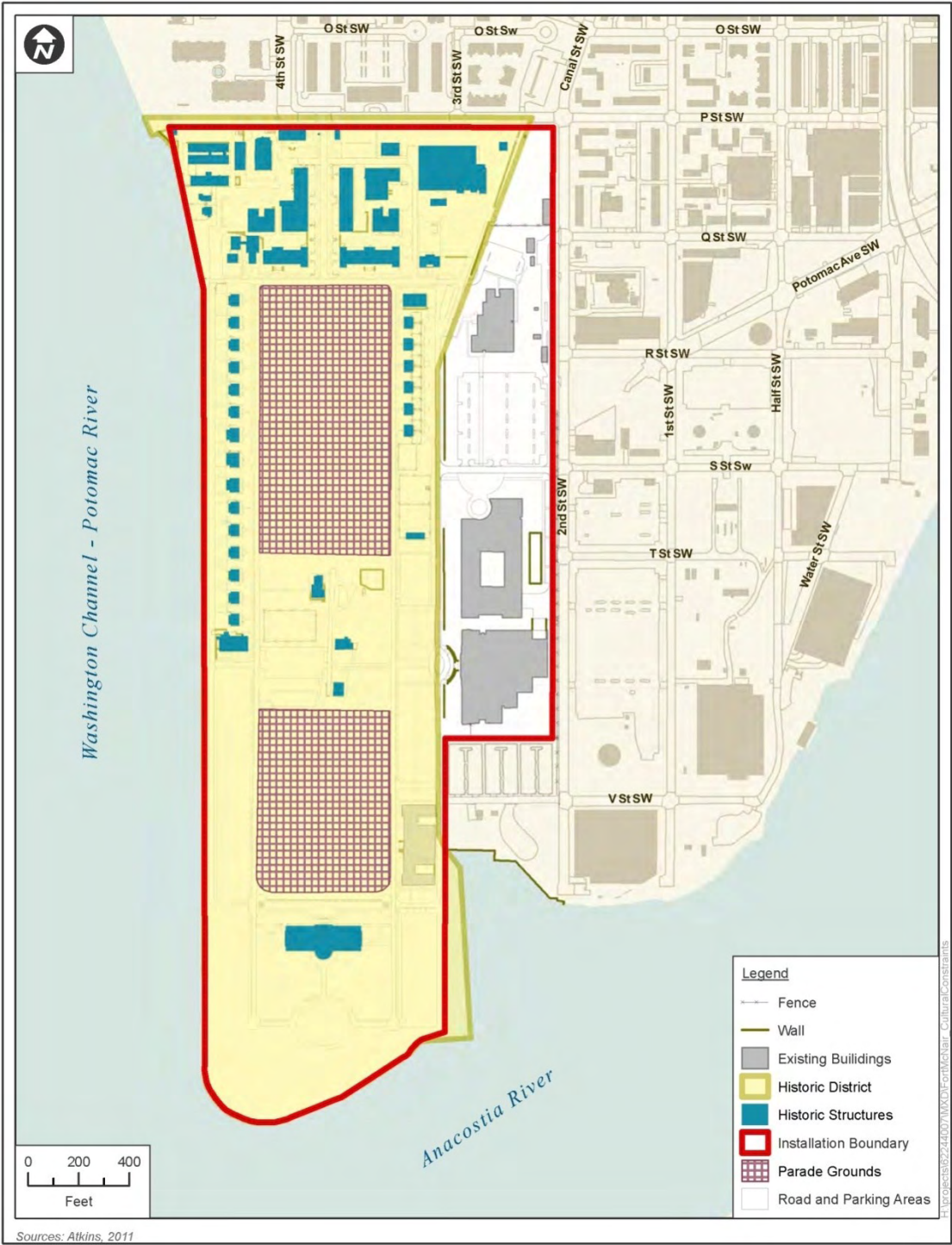


Figure 13. Fort McNair Cultural Resource Constraints Map



3.5.3.1 Alternative 1 – No Action

The implementation of Alternative 1 would include projects identified in the Fort Myer 30-Year Master Plan and the Henderson Hall Area Development Plan. Renovation of Buildings 219, 229, and 249 at Fort Myer would protect the historic nature of the buildings as contributing resources to the Fort Myer Historic District. Section 106 consultation was completed or initiated regarding the proposed renovation plans for these buildings. Interior renovation will not have an impact since it will not likely affect the appearance of the buildings and renovations for Building 249 are preserving interior historic features. The construction of a 216-person barracks does not directly impact the Historic District.

Planned development at Henderson Hall would not have an impact on cultural resources from the renovation of several buildings, road improvements, and construction of a stormwater management pond. No architectural resources have been identified at Henderson Hall. Alternative 1 would not result in any impacts to cultural resources on Fort McNair.

3.5.3.2 Alternative 2 – Implementation of the RPMP

The RPMP and the Installation Design Guide would comply with the cultural resource regulatory framework, and the ICRMP outlines U.S. Army policies, procedures, and responsibilities for meeting cultural resources compliance and management requirements at Fort Myer and Henderson Hall, Virginia and Fort McNair, District of Columbia.

Activities resulting from the implementation of Alternative 2 that would affect buildings or landscape areas in the Fort Myer or Fort McNair historic districts would require NHPA Section 106 consultation to be coordinated with either the Virginia SHPO or the DCHPO. Consultation would assess impacts and determine methods to mitigate and minimize any potential impacts to the historic districts and/or structures. New infill development in the historic districts would match and preserve the historic development pattern to minimize impacts. Landscape development on or near historic districts would preserve open spaces and minimize impacts on the viewshed of the historic districts; however, some impacts to the historic viewshed would be expected.

Renovation of historic buildings could result in a determination of adverse effects; incorporation of preservation standards would assist in avoiding or minimizing the alteration or destruction of architectural resources and their character defining features. During project planning, project proponents will inform the Cultural Resource Manager of the undertaking.

The demolition of historic buildings or buildings that are contributing resources to the Historic Districts would require a Section 106 consultation with the Virginia SHPO or DCHPO early in the planning process, to allow proper time to complete the consultation prior to the demolition. NHPA Section 106 Memorandum of Agreement stating stipulations and an economic analysis would be required by the Cultural Resource Manager. For determination of adverse effects, such as demolitions, Section 106 regulations require expanding the consultation to include local, regional, federal, and other interested parties. According to an early letter from the DCHPO, proposed demolitions would require a public consultation (DCHPO 2011). If demolition occurs, to make room for new construction, the replacement design should be compatible with buildings

1681 in the area and the landscape should follow the historic pattern of land use, topography,
1682 transportation patterns, and spatial relationships. Compliance procedures would require a
1683 minimum of 4 to 6 months to complete.

1684 Although inappropriate alteration or demolition of historic buildings should be avoided during
1685 the time frame of the RPMP, effects from the implementation of projects may occur under
1686 Alternative 2. The Installation Design Guide follows the processes established for resolving
1687 adverse effects to balance fulfilling the mission with historic preservation.

1688 Due to the high potential of archaeological resources, any project resulting in ground disturbance
1689 activities or projects in a location with a moderate-to-high potential for archaeological resources
1690 may require a Phase I archaeological survey. If archaeological sites are discovered and recorded
1691 as potentially eligible for NRHP listing during Phase I studies, Phase II site testing could occur.

1692 **3.5.4 Mitigation Measures**

1693 In addition to consulting with state offices, Section 106 consultation would include the National
1694 Capital Planning Commission (NCPC) for projects at Fort McNair and NCPC would be kept
1695 apprised of projects in Virginia.

1696 Projects would be initiated only after the environmental review has been completed and the
1697 required permits are obtained.

1698 Development projects implemented under the RPMP must meet the Secretary of the Interior's
1699 Standards for the Treatment of Historic Properties. Development would avoid all NRHP eligible
1700 archeological sites, buildings, and historic districts and demolition of historic properties should
1701 be avoided.

1702 Inventories of historic buildings and structures are an ongoing process, and a potential for
1703 undiscovered archaeological sites remains. When new discoveries are identified in the future,
1704 archaeological sites should be properly recorded and evaluated if necessary. Future
1705 investigations should be conducted in accordance with Section 110 of the NHPA to comply with
1706 the requirement to inventory and evaluate all federal property, or in advance of ground-
1707 disturbing activities in areas determined to retain potential for archaeological resources
1708 (JBM-HH 2011). Portions of Fort McNair such as Building 20, where the trial for the Lincoln
1709 Conspirators was held, and the old post hospital (Building 54), where Walter Reed conducted
1710 some of his studies on yellow fever, offer exceptional significance and warrant NRHP and
1711 possibly even NHL designation or listing should JBM-HH wish to pursue such as part of the
1712 Cultural Resource Management Program (JBM-HH 2011).

1713 ICRMP guidelines provide mitigation measures to be considered during the implementation of
1714 future projects under the proposed RPMP and include close coordination with the Virginia
1715 SHPO and DCHPO as well as:

- 1716 • Avoidance of all areas having NRHP-eligible sites.
- 1717 • Physical protection of individual sites by fencing, berms, burying, or taking protective
- 1718 measures for making them inaccessible.

- 1719 • Monitoring the effectiveness of protection measures.
- 1720 • Protection/treatment alternatives for historic buildings and structures include
- 1721 maintenance, preservation, rehabilitation, and documentation and should follow Secretary
- 1722 of the Interior's *Standards for the Protection of Historic Properties*.

1723 The ICRMP guidance also states that when protection of a resource is impossible, data recovery
1724 should be conducted to compensate for the site's loss of integrity and information potential
1725 (JBM-HH 2011).

1726 **3.6 SOCIOECONOMIC CHARACTERISTICS**

1727 Socioeconomic factors are defined by the interaction or combination of social and economic
1728 factors. The relevant factors related to JBM-HH include population and housing, economic
1729 development, and quality of life/health and safety issues. The Region of Influence (ROI) for
1730 socioeconomic characteristics includes Arlington County, Virginia and the District of Columbia;
1731 the ROI is the same for the discussion of environmental justice presented in Section 3.6.4.

1732 **3.6.1 Demographics**

1733 **Arlington County Population and Housing**

1734 Arlington County comprises an area of 26 square miles and is one of the smallest counties in
1735 Virginia, with one of the highest population densities. The estimated 2011 population is
1736 216,004. The population of Arlington County increased approximately 11 percent between
1737 2000 and 2010 to 210,280. The estimated population by 2040 is 252,000, an increase of
1738 approximately 17 percent (Arlington County 2011a). Arlington residents are among the most
1739 educated in the country. In 2009, 69 percent of those over 25 years of age had obtained a
1740 Bachelor's degree and 34 percent a graduate or professional degree (Arlington County 2011a;
1741 U.S. Census 2010).

1742 In 2010, 36 percent of Arlington County's population was composed of minorities. Arlington
1743 County public school children speak 98 languages and originate from 126 countries. The
1744 average household size in 2009 was 2.38 persons (U.S. Census 2010).

1745 In 2010 Arlington County had 105,404 housing units composed of 26.2 percent detached single
1746 units, 10.1 percent attached single unit, and 63.6 percent multi-family units; approximately
1747 89.7 percent were occupied (Arlington County 2011a; U.S. Census 2010).

1748 **Fort Myer and Henderson Hall**

1749 Fort Myer and Henderson Hall are expected to have a total population of 3,944 in 2012 including
1750 2,210 military and 1,734 civilians (Atkins 2012).

1751 **Washington, D.C. (Southwest Waterfront) Population and Housing**

1752 Fort McNair is located in the Southwest Waterfront and Buzzard Point sections of Washington,
1753 D.C. The area consists of nearly 3 square miles characterized by industry, large open spaces and
1754 wetlands, housing, and commercial centers.

1755 The population of Washington, D.C. in 2010 was 601,723. Of this population, 61.5 percent are
1756 minorities, including black, Asian, American Indian, Alaska Native, Native Hawaiian, Pacific
1757 Islanders, multi-racial, and other races; 14.2 percent of the population over 5 years old speaks a
1758 language other than English at home. The estimated population for Washington, D.C. is
1759 expected to decrease to 443, 414 in 2030 as a result of a continued movement to the surrounding
1760 suburbs (U.S. Census 2011). The average household size in 2009 was 2.21.

1761 In 2009 Washington, D.C. had 285,135 housing units, of which 60.4 percent were in multi-unit
1762 housing units. Approximately 88.4 percent were occupied (U.S. Census 2010).

1763 **Fort McNair**

1764 In 2012, Fort McNair's population is expected to be 1,800, of which 814 are civilians based on
1765 known operational requirements (Atkins 2012).

1766 **3.6.2 Economic Activity**

1767 **Arlington County**

1768 Arlington County has a strong economy illustrated by a high employment to population ratio,
1769 with 210,200 jobs in a total working population (18 years of age and over) of 175,001. In
1770 addition, the unemployment rate in 2011 was 4.1 percent, well below the national average of 9.2
1771 percent. The County's 2011 median household income was \$103,900.

1772 The federal government, including agencies such as DoD, the U.S. State Department, the U.S.
1773 Drug Enforcement Agency, and the National Science Foundation, among many others, is the
1774 largest single employer in Arlington County, accounting for 25.7 percent of total employment,
1775 next to professional and technical services, accounting for 20.2 percent of total employment. A
1776 significant federal presence has supported the development of various federal contractors, non-
1777 profit groups, law firms, and consulting firms. The large government presence has also attracted
1778 defense contractors such as General Dynamics, Lockheed Martin, Boeing, and Computer
1779 Sciences Corporation. Other high profile companies such as Verizon, Nordstrom, Marriott
1780 International, and US Airways have added diversity to Arlington's robust economy.

1781 Retail is also a substantial component of the economy with 11,110 employees (a total of
1782 5.3 percent of total employment) and an estimated total of \$3.06 billion in sales in 2010. There
1783 are seven major retail centers with a total of 606 stores and 3,542,647 ft² of retail space.
1784 (Arlington County 2011a)

1785 **Washington, D.C. (Southwest Waterfront)**

1786 The Southwest Waterfront of Washington, D.C. is economically diverse, yet it is shifting from a
1787 market guided by industry and government to one defined by office, retail, and commercial
1788 spaces. In 2005, there were approximately 32,500 jobs in the waterfront area primarily filled by
1789 commuters. Commuting is a major characteristic of this area, as only 22 percent of Anacostia
1790 Waterfront jobs are filled by Washington, D.C. residents, and 7 percent by neighborhood
1791 residents. Due to redevelopment plans and current construction projects, it is estimated that by
1792 2025 there will be a total of 57,900 jobs, reflecting 20 percent of the total job growth in the

1793 District (NCPC 2004a). In Washington, D.C., the 2009 median household income was \$58,906
1794 (U.S. Census 2010).

1795 Similar to adjacent Arlington County, the federal government is one of the largest employers in
1796 the Southwest/Near Southeast section of Washington, D.C. The Washington Navy Yard is
1797 headquarters for the Naval District of Washington, which includes naval support activities, the
1798 Navy Historical Center, and a naval museum. Over the past 15 years, District and federal
1799 initiatives have been implemented to revive the Southwest Waterfront area, including the
1800 relocation of 5,000 federal employees back to the Washington Navy Yard. The U.S. Department
1801 of Transportation employs 7,000 workers at its new headquarters next to the Navy Yard Metro
1802 stop. Other Southwest Washington, D.C. government tenants include the Federal
1803 Communications Commission, National Aeronautics and Space Administration, and FEMA
1804 (NCPC 2004a).

1805 The Potomac Electric Company (PEPCO) Generating Station at Buzzard Point, a gravel supply
1806 yard, an asphalt batching facility, scrap yards, building supply warehouses, and marine services
1807 are large industrial facilities in the area (NCPC 2004a).

1808 **3.6.3 Protection of Children**

1809 On 21 April 1997, President Clinton issued EO 13045, *Protection of Children From*
1810 *Environmental Health Risks and Safety Risks*. This EO directs each federal agency to ensure that
1811 its policies, programs, activities, and standards address disproportionate environmental health or
1812 safety risks to children that may result from the agency's actions. EO 13045 recognizes that a
1813 growing body of scientific knowledge demonstrates that children may suffer disproportionately
1814 from environmental health and safety risks due to still developing neurological, immunological,
1815 physiological, and behavioral systems. Examples of risks to children include increased traffic
1816 volumes and industrial- or production-oriented activities that would generate substances or
1817 pollutants that children could come into contact with and ingest.

1818 Historically, children have been present as residents and visitors (e.g., living in family housing,
1819 using recreational facilities) on all installations comprising JBM-HH. The Child Development
1820 Center at Fort Myer provides child care services to the Pentagon as well as to the families on
1821 Fort Myer. The Army has taken precautions for their safety by a number of means, including
1822 limiting access to certain areas, the use of fencing, and providing adult supervision.

1823 **3.6.4 Environmental Justice**

1824 Environmental justice addresses the race, ethnicity, and poverty status of populations within the
1825 ROI. On 11 February 1994, President Clinton issued EO 12898, *Federal Actions to Address*
1826 *Environmental Justice in Minority Populations and Low-Income Populations*. The order is
1827 designed to focus the attention of federal agencies on the human health and environmental
1828 conditions in minority and low-income communities. Environmental justice analyses are
1829 performed to identify potential disproportionate adverse effects from proposed actions and to
1830 identify alternatives that might mitigate these effects (CEQ 1997).

1831 Minority refers to people who classified themselves as American Indian or Alaskan Native;
1832 Asian or Pacific Islander; African Americans or Black, not of Hispanic origin; or Hispanic.

Minority populations are defined as areas where racial minorities comprise 50 percent or more of the total population (CEQ 1997). Because CEQ guidance does not establish a threshold for low-income communities, a low-income population that is at least 25 percent greater than the percentage of low-income populations of Arlington County, Virginia or Washington, D.C. were used to characterize populations living in poverty for the purposes of this PEA.

Arlington County

In 2009, 7.2 percent of all people in Arlington County and 4.2 percent of all families lived below the poverty line. Arlington County is not considered a low-income community since low-income people and families do not comprise more than 25 percent or more of the total population (U.S. Census 2009).

The population of minorities in Arlington County is comparable to the state of Virginia and the national average. Percentage of Latino or Hispanic people (of any race origin) is higher than both the Virginia average and the national average. Arlington County is not considered a minority community because the percentage of minorities living in Arlington County is less than 50 percent of the total population (Table 5).

Table 5. Racial Distribution (percent) in Arlington County, Commonwealth of Virginia, and United States

	White	Black/ African American	American Indian/ Alaska Native	Asian	Native Hawaiian/ Pacific Islander	Other Race	Two or More Races	Latino/ Hispanic (of any race)
Arlington County	71.7	8.5	0.5	9.6	0.1	5.9	3.7	15.1
Virginia	68.6	19.4	0.4	5.5	0.1	3.2	2.9	7.9
United States	75.1	12.3	0.9	3.6	0.1	5.5	2.4	12.5
Source: U.S. Census 2010.								

Washington, D.C. (Southwest Waterfront)

Census tracts delineating the area in the vicinity of Fort McNair were used to calculate racial and low-income demographics in the Southwest Waterfront of Washington D.C. (Table 6). The area was bound by Independence Avenue, Washington Avenue, and Southeast Freeway in the north, I-195 in the west, U.S. Route 1 in the east, and the Anacostia River and Washington Channel in the south.

In 2009, two census tracts had high percentages of low-income population. In tract 60.02 (northeast of the installation), 95 percent of all families and 92.3 percent of all people live below the poverty level. In tract 64 (on the eastern boundary of the installation), 43.6 percent of all families and 37.3 percent of all people live below the poverty level. In Washington, D.C., 14.9 percent of all families and 18.3 percent of all people live below the poverty level. As a result, the low-income population in the area surrounding Fort McNair is considered a low-income community (U.S. Census 2009).

In comparison to Washington, D.C., percentage of minorities in the area surrounding Fort McNair is similar. Washington, DC has an above average proportion of minorities; in fact, minorities comprise the primary population percentage. Similarly the area surrounding Fort McNair has an above average proportion of minorities and would be considered a minority community since minorities comprise more than 50 percent of the population.

Table 6. Percent of Minority Populations by Census Tract in the Southwest Waterfront Area of Washington, D.C.

	White	Black/ African American	American Indian/ Alaska Native	Asian	Native Hawaiian/ Pacific Islander	Other Race	Two or More Races	Latino/ Hispanic (of any race)
Tract 64	6.6	87.0	1.1	1.8	0.0	1.4	2.1	3.0
Tract 72	59.8	30.9	0.1	5.2	0.0	1.0	3.0	5.5
Tract 102	48.7	39.5	0.3	5.1	0.0	1.3	5.0	5.9
Tract 105	32.3	55.4	0.4	6.8	0.1	1.7	3.3	6.2
Tract 110	43.9	46.1	0.8	3.8	0.1	1.8	3.5	4.9
Washington, D.C.	38.5	50.7	0.3	3.5	0.1	4.1	2.9	9.1
United States	75.1	12.3	0.9	3.6	0.1	5.5	2.4	12.5
Source: U.S. Census 2010.								

3.6.5 Environmental Consequences of the Alternative on Socioeconomics

3.6.5.1 Alternative 1 – No Action

The population of JBM-HH has increased as a result of BRAC 2005 recommendations completed in 2011. Projects to accommodate other associated development would temporarily increase the daily population of JBM-HH as a result of an influx of construction workers and contractors necessary to complete any construction, renovations, or demolition. Other projects considered under Alternative 1 would result in the short-term hiring of additional employees to accomplish additional construction-related tasks that would also increase employment. Other benefits could result from the removal and remediation of hazardous materials (lead paint, asbestos, etc.) within the older buildings during demolition and renovation projects. Additional short-term benefits to the local economy would result from expenditure of funds related to construction equipment and materials, temporary lodging, food, and other purchases made by construction workers. Some beneficial impacts to the region's low-income and minority communities may occur as a result of the increased job market.

Joint base reorganization of Fort Myer, Henderson Hall, and Fort McNair has increased the use of services and amenities (recreation facilities, shopping, dining, emergency and health services) by regional and local visitors. Expansion of the Marine Corps Exchange (MCX) at Henderson Hall and recent construction of the CDC on Fort Myer after September 11, 2001 have also increased the use of installation services for child care and shopping and dining amenities.

Off-installation housing in the area has an occupancy rate of approximately 89.7 percent in Arlington County and 88.4 percent in Washington, D.C. On-installation housing is limited and construction of a 216-person barracks would provide additional billeted space for personnel at Fort Myer. However, it is expected that most of the additional working population resulting from the relocation of The Old Guard would reside in off-installation housing and would choose to remain at their location by adjusting their commute. Some local relocation in order to be closer to Fort Myer and Henderson Hall could result in a shift of housing occupation from Washington, D.C. to Arlington County, Virginia; however, it would be indiscernible in the context of relocations occurring among the general, regional population. A slight benefit to Arlington County as a result of real estate tax payments resulting from home purchases would offset any increase in the need for services (including educational services) by new residents related to the relocation of The Old Guard. A slight increase in the use of local services by relocated personnel may occur as a result of the expenditure of income on local shopping, dining, other amenities, and services.

Alternative 1 would not result in disproportionately greater adverse environmental or human health effects on minority or low-income communities or displacement of minority or low-income populations. Construction activities would take place entirely within the installations of JBM-HH and would generally not be visible. Noise generated would be outside the limits of impact and would also be muffled by the large perimeter brick walls surrounding the installations.

3.6.5.2 Alternative 2 – Implementation of the RPMP

Alternative 2 would continue development beyond the timeframe of Alternative 1 and would provide the framework for development of JBM-HH to 2030. During that time the population of the installations is not expected to increase substantially. However, as described for Alternative 1, Alternative 2 would result in short-term benefits to the local economy resulting from a need for temporary construction support services and a larger worker population. The level of short-term benefit would be related to the size, duration, and level of construction necessary for each project through the timeframe of the RPMP.

Development of JBM-HH as proposed in the RPMP would include the expansion of recreation, medical, child care, residences, and amenities including shopping and dining opportunities, and would continue to support the needs of the local and regional users.

Because on-installation housing would still be limited and there are no plans to substantially increase available permanent housing, any future increase in permanent staff would continue a demand for affordable housing in Arlington County, Washington, D.C., and surrounding communities. Local educational systems could receive additional students. However, similar to Alternative 1, any increase in demand for services and education resulting from continuing development at Fort Myer would be expected to be negligible in the context of the expected increase in population in Arlington County, which is expected to continue to grow over the next 30 years, reaching a total of 131,700 housing units, 252,000 residents, and 281,100 jobs by 2040 (Arlington County 2010). While the neighboring communities surrounding Fort Myer and Henderson Hall are not considered environmental justice communities, the neighboring community surrounding Fort McNair has been identified as an environmental justice community.

1933 As a U.S. Army Installation, Fort McNair maintains a presence within the community but is
1934 structurally isolated from the community by AT/FP requirements and a large perimeter wall.
1935 Construction activities would take place entirely on the installation and would generally not be
1936 visible. Noise generated from construction activities would be outside the limits of impact and
1937 muffled by the large perimeter brick walls at Fort McNair. As a result, the implementation of
1938 Alternative 2 would not result in disproportionately greater adverse environmental or human
1939 health effects on minority or low-income communities or displacement of minority or low-
1940 income populations.

1941 Potential purchase of vacant lots adjacent to Fort McNair could provide opportunities for
1942 employment for local individuals depending on the final use or development of any property
1943 purchased.

1944 No mitigation measures are proposed.

1945 **3.7 LAND USE**

1946 The following land use analysis for JBM-HH addresses general land use patterns, relevant plans
1947 and ordinances, land ownership in the surrounding area, and the context of land use on the
1948 installations in relation to those land uses. The land uses described for JBM-HH in this analysis
1949 are based on the classification system presented in the 2007 Army Master Planning Technical
1950 Manual for classifying land uses into seven categories as described in Chapter 1. Figures 4 and 5
1951 present the existing land use on Fort Myer and Henderson Hall, and Fort McNair as described
1952 below.

1953 **3.7.1 Current Land Use at JBM-HH**

1954 **Fort Myer**

1955 The predominate land uses at Fort Myer are Community and Troop with smaller areas of
1956 Residential, Industrial, and Professional/Institutional scattered throughout the Installation. The
1957 following is a summary of existing land use conditions in Fort Myer. Aging facilities would
1958 provide good redevelopment potential.

1959 ***Professional/Institutional***

1960 Fort Myer's current administrative land uses are spread across the northern section of the
1961 Installation. There are currently three facilities: Building 59 – FMMC Garrison Command
1962 Headquarters, Building 305 – Offices of DPW, and Building 205 – NCR Directorate of
1963 Information Management Offices. Building 205 also serves as a storage facility for various other
1964 tenant organizations on Fort Myer.

1965 ***Community***

1966 Except for the Commissary, most of the commercial-based activities – shopping, dining,
1967 services – are located along the main north-south axis of Fort McNair Road. There are currently
1968 four main areas that provide community support services and four others that are set aside for
1969 outdoor recreation: two tennis court areas, a baseball field, and the officer's club pool facilities.

1970 The first area is located north of Jackson Avenue and west of Johnson Lane. Currently, this area
1971 offers several community service facilities such as the Officers Club and pools, post office, thrift
1972 stores, Army lodging facilities, Army Community Services, and the Morale, Welfare, and
1973 Recreation offices. Nearly all the facilities located here are within the historic district and are
1974 housed currently in buildings more than 50 years old.

1975 The second area is along McNair Road in the central core of the Installation. It includes the
1976 Dining Facility, Spates Hall, Bowling Center, Recreation Center, Fitness Center, and Library.
1977 This area is used mainly by the public and officers after ceremonial funerals and special events.
1978 Currently, there is also a tennis court, but it is used for either storage or construction staging
1979 areas.

1980 The third area is accessed directly from the main gate on Carpenter Road and includes
1981 community support facilities such as the Post Exchange (PX), the bank, gas station, shoppette,
1982 Department of Emergency Services, and chapels. In general, these community facilities are
1983 considerably larger in scale than those of the historic district because they serve a more regional
1984 purpose and therefore attract a larger volume of users and traffic.

1985 The fourth area is located adjacent to Henderson Hall in the southern section of Fort Myer. The
1986 area includes the Commissary, Rader Medical Clinic, CDC, and baseball field. The CDC is the
1987 largest in the Army and serves Fort Myer as well as the Pentagon to the southwest.

1988 ***Residential***

1989 Family Housing consists of General Officer and Senior Non-Commissioned Officer housing
1990 within the historic district of the Installation. These homes are historic, colonial in nature, and
1991 are maintained by the Executive Management Housing Directorate. Additionally, access to the
1992 General Officer housing is restricted by its own security gate and access drive.

1993 ***Troop***

1994 The primary troop land use area on the Installation is located between Arlington Boulevard /
1995 U.S. Route 50 and McNair Road. This area encompasses a majority of the historic facilities on
1996 the Installation. These facilities include the horse stables, Conmy Hall, Town Hall, The Old
1997 Guard Headquarters and barracks, Summerall Parade Field, The Old Guard Building, the Old
1998 Post Chapel, and the Consolidated Operation Facility. This area supports the main ceremonial
1999 mission of the Installation and ANC.

2000 The second troop area is located near the northern Installation boundary, between Marshall Drive
2001 and Fort McNair Road. Facilities in this area support local training operations, and include the
2002 canine kennel and training facility for the Military Police, Whipple Field, and storage bunkers.

2003 ***Industrial***

2004 The only industrial area on the Installation is located between ANC and Marshall Drive in the
2005 northern section of Fort Myer. This area houses the DPW and storage facilities. It also includes
2006 a motor pool for The Old Guard, a fuel station, and a vehicle maintenance shop.

2007 **Henderson Hall**

2008 Professional/Institutional, Community, and Troop each account for roughly one-third of
2009 Henderson Hall’s land use.

2010 ***Professional/Institutional***

2011 Because land is limited at Henderson Hall, there are currently only two buildings designated for
2012 administrative uses; Building 01 has been demolished in order to build another administrative
2013 facility. Building 29 houses many functions, but the most significant is the commanding
2014 officers’ headquarters.

2015 ***Community***

2016 The majority of the land at Henderson Hall is used for support to the U.S. Marines stationed in
2017 the NCR. These facilities include the MCX, Marine Club, Fitness Center, car wash, basketball
2018 court, and swimming pool. Currently, there is an open section of land adjacent to Hobson Road
2019 and ANC.

2020 ***Troop***

2021 The Unaccompanied Enlisted Personnel Housing encompasses the troop area of Henderson Hall
2022 located in the central core. The barracks are currently in poor condition, but plans for renovation
2023 in the near future are in process. In addition, the parking garage under Building 25 is in poor
2024 condition and is currently being evaluated/inspected by engineers at Naval Facilities Engineering
2025 Command–Washington.

2026 **Fort McNair**

2027 Fort McNair land use is primarily Professional/Institutional and Community with Residential,
2028 Troop, and Industrial land use accounting for smaller areas primarily in the northern section of
2029 the Installation. Similar to Fort Myer and Henderson Hall, unused and/or aging facilities present
2030 redevelopment opportunities.

2031 ***Professional/Institutional***

2032 A large percentage of Fort McNair’s land is designated as Professional/Institutional and is spread
2033 across the Installation. Of this land, the National Defense University accounts for a significant
2034 portion. There are currently four main areas set aside for Professional/Institutional use.

2035 The first area is comprised of two large facilities at the southern section of the peninsula, which
2036 are included in the National Defense University. These facilities are the historic Army War
2037 College and the Industrial College of the Armed Forces. The War College was one of the
2038 original facilities built in 1901 when Fort McNair was originally established. Its purpose was to
2039 be an outlook point and first point of defense for the newly established capital city.

2040 The second area is located in the eastern section of Fort McNair along 2nd Street SW and
2041 includes the National Defense University and the newly constructed Lincoln Hall, which are

2042 connected by a covered walkway. This area was originally outside the plan for Fort McNair, but
2043 was purchased to accommodate expansion of the National Defense University.

2044 The third area is the central core of the Installation and includes the old Civil War penitentiary,
2045 which is currently the Africa Center (Grant Hall, Building 20), and the Washington Arsenal
2046 (Davis Hall, Building 21), which is now part of the National Defense University. It also includes
2047 Building 17, which is an administrative facility for the National Defense University. All of these
2048 facilities date back to the Civil War era and are considered historic assets.

2049 The fourth area lies in the north section of Fort McNair between A Street and B Street. The
2050 tenants in this area are located in historic buildings and include the Inter-American Defense
2051 College, Joint Force Headquarters National Capital District Military District of Washington,
2052 Garrison, and the Center for Military History.

2053 ***Community***

2054 The Community land use on Fort McNair is divided into four main areas spread across the
2055 Installation. Included in these areas are outdoor recreational facilities that include: tennis courts,
2056 baseball fields, a pool, playgrounds, and open green space.

2057 The largest area of Community land use is located between 2nd Avenue and 5th Avenue. It
2058 encompasses the central core of the Installation and includes facilities such as the main parade
2059 field, former golf course, old physical fitness center, and baseball fields. A majority of this area
2060 is open green space, originally planned in the historic McKim, Mead, and White plan of 1903.

2061 The second area is located east of 5th street in the northeast corner of the Installation. This area
2062 includes the newly constructed physical fitness center, the new ACP, storage facilities, and PX
2063 shoppette.

2064 The small community area west of 3rd Avenue and north of B Street encompasses a diverse mix
2065 of uses that include the dining facility, dental clinic, army lodging, and medical clinic, which is
2066 considered a historic landmark.

2067 The fourth area is just inside the main ceremonial gate along 3rd Avenue and includes primarily
2068 facilities for installation support such as the post office and military police station.

2069 ***Residential***

2070 General Officer's housing and Senior Non-Commissioned Officer housing comprise the
2071 Residential land use of Fort McNair. The officers residing at Fort McNair command and support
2072 operations at the U.S. Capitol, the Pentagon, and the White House, and do not work on the
2073 Installation; however, the Installation provides security and support to them. The housing units
2074 are maintained by the Installation.

2075 ***Troop***

2076 Currently, there are only two facilities on Fort McNair designated as Troop land use: The Old
2077 Guard barracks and administrative facilities in Buildings 47 and 48.

2078 ***Industrial***

2079 The first section of the Industrial land use is located in the northwest corner of the Installation
2080 south of P Street SW and west of 3rd Avenue. Most of the facilities included in this area are the
2081 Department of Public Works facilities, storage, maintenance, and emergency operations center.
2082 The utility facilities such as the steam plant and electrical substation are also located within this
2083 area.

2084 Industrial land use is also designated south of P Street SW and west of 2nd Street SW. Facilities
2085 within the area include operational storage and a temporary guard shack.

2086 **3.7.2 Local Land Use**

2087 **3.7.2.1 Areas Surrounding Fort Myer and Henderson Hall**

2088 ***Residential***

2089 Areas zoned for residential use comprise the primary land use in the vicinity of Fort Myer and
2090 Henderson Hall. These zones are located north, west, and south of the installations. While a
2091 range of residential zoning densities is present, the principal residential zones are characterized
2092 by multi-unit apartment dwelling districts located north and west of Fort Myer. Other residential
2093 areas in the vicinity include single-unit and limited two-unit dwellings. These areas are located
2094 west of the apartment dwelling district and tend to be homogeneous, typically with lower
2095 building heights and densities than the apartment dwelling zones.

2096 ***Industrial***

2097 There are three types of industrial zones in the vicinity of Fort Myer and Henderson Hall; all are
2098 located southeast of the Installation near the Pentagon, Pentagon City, and Crystal City;
2099 however, these industrial zones are small and number approximately a dozen in all and as such
2100 are not considered a significant land use in the surrounding area. East of the Pentagon, along
2101 U.S. Route 1, is an assortment of small zones of industrial land use including a large area next to
2102 the Pentagon City Metro Station, and several small parcels next to the Crystal City Metro
2103 Station.

2104 ***Commercial***

2105 A large number and variety of commercial zones are located in the vicinity of Fort Myer and
2106 Henderson Hall indicating that commercial activity, especially office buildings and retail, is a
2107 significant land use in this area. Commercial zones are located in the Rosslyn and Courthouse
2108 areas and occur as a variety of medium to high-density, mixed-use developments. Commercial
2109 zones along the Columbia Pike are blended with residential zones, aiding in the development of a
2110 main street atmosphere. Commercial zones in Pentagon City are generally high-density, mixed
2111 commercial and residential zones.

2112 **3.7.2.2 Areas Surrounding Fort McNair**

2113 ***Residential***

2114 Residential zones in the vicinity of Fort McNair are primarily located north and northeast of the
2115 Installation in the Southwest Waterfront area. These neighborhoods include row houses, flats,
2116 and apartments.

2117 ***Industrial***

2118 Industrial land use is found in manufacturing zones located directly adjacent to Fort McNair, in
2119 the Buzzard Point and Near Southeast neighborhoods. These areas are characterized by parking
2120 lots, car lots, empty lots, the PEPCO power plant, and warehouses. Industrial zones are a
2121 significant land use in this area and are targeted for redevelopment, typically for medium-high
2122 density mixed-use purposes.

2123 ***Commercial***

2124 Commercial districts near Fort McNair are generally along M Street, consisting of new office
2125 and retail development, especially along M Street near the Washington Nationals baseball
2126 stadium.

2127 Adjacent to the eastern side of Fort McNair are two small zones of low and high density mixed
2128 use (residential, commercial, and industrial). The Washington Navy Yard, which is zoned as
2129 Government Land Use, is also in the vicinity.

2130 **3.7.3 Local Land Use Plans**

2131 **3.7.3.1 Arlington County General Land Use Plan**

2132 The Arlington County General Land Use Plan guides future development in Arlington County.
2133 In the vicinity of Fort Myer and Henderson Hall, the General Land Use Plan presents a range of
2134 densities and typical land uses for current and future development and has designated four areas
2135 as special districts for development: Fort Myer Heights North Special District, Rosslyn
2136 Coordinated Redevelopment District, Radnor Heights East Special District, and Columbia Pike
2137 Special Revitalization District (Arlington County 2011b).

2138 ***Fort Myer Heights North Special District***

2139 Fort Myer Heights North is a medium density residential community located adjacent to the
2140 north side of Fort Myer and Henderson Hall. The area is designated to promote a balance
2141 between preservation and redevelopment in order to achieve the community's goals of
2142 preserving affordable housing, historic buildings, open space, mature trees, and neighborhood
2143 scale. The vision for this area is to emphasize the preservation of its historic core, characterized
2144 by garden style apartments that are among the first multifamily buildings in Arlington County,
2145 while allowing a strategic blend of conservation and redevelopment along the southern edge.
2146 Limits on density and building heights are intended to preserve the historic core. A combination

2147 of regulations and incentives will be provided to preserve the character of the neighborhood and
2148 its historic core (Arlington County 2011b).

2149 ***Rosslyn Coordinated Redevelopment District***

2150 The Rosslyn Coordinated Redevelopment District is located north of the Fort Myer and
2151 Henderson Hall, along the Metrorail Orange Line. This area plan encourages physical and
2152 economic development along the Rosslyn-Ballston corridor to create a competitive first class
2153 urban center. The vision for this area is to achieve high quality mixed-use development,
2154 including the development of residential units, hotel units, and office buildings, as well as
2155 provide for the headquarters of major corporations and institutions. The area is planned for high
2156 density development, although there are limits on densities and building heights in these areas;
2157 variances for densities and building heights may be granted for the provision of community
2158 benefits. Some of the plans adopted by the district include: the development of a mixed-use
2159 project with a significant residential component; enhancement of retail, restaurant, and
2160 entertainment facilities; enhancement of the pedestrian, vehicular, and mass transit circulation
2161 system; and provision of open space or other public facilities and/or amenities, among others.
2162 Several hotels, residential buildings, and office buildings have been built as part of this district
2163 plan (Arlington County 2011b).

2164 ***Radnor Heights East Special District***

2165 The Radnor Heights East Special District is a small area located north of the Installation. The
2166 vision of this district is to recognize the area as a distinct neighborhood, centrally located in the
2167 vicinity of Fort Myer and Henderson Hall, ANC, the Iwo Jima Memorial, and parkland.

2168 This district intends to develop the area with a variety of housing types with high quality
2169 architecture that maintains the viewshed of federal monuments by limiting building heights.
2170 New development is anticipated to preserve the current landscaping and improve pedestrian
2171 access (Arlington County 2011b).

2172 ***Columbia Pike Corridor***

2173 The Columbia Pike Corridor is located south of Fort Myer and Henderson Hall along Columbia
2174 Pike. The vision of this area is to revitalize and redevelop the area along Columbia Pike by
2175 stimulating reinvestment in business and buildings in the corridor. This project is ongoing and
2176 several project goals include: stimulating investment in the area as a retail shopping area,
2177 improving community facilities and services for residents, enhancing streetscape, and
2178 redevelopment of the area as a “town center” (Arlington County 2011b). In addition, Arlington
2179 County is in the process of planning two modern streetcar lines; the Columbia Pike line which
2180 would run from Bailey’s Crossroads, Fairfax County, Virginia to Pentagon City is currently
2181 scheduled to be operational in 2017 (Arlington County 2011c).

2182 **3.7.3.2 Comprehensive Plan of the National Capital – Federal Elements**

2183 The *Comprehensive Plan of the National Capital: Federal Elements* (NCPC 2004a) provides a
2184 framework to guide federal planning and development and the management of federal activities
2185 and operations within the National Capital Region, which includes the District of Columbia;

2186 Montgomery and Prince George's counties in Maryland; Arlington, Fairfax, Loudoun, and
2187 Prince William counties in Virginia; and all cities within the boundaries of those counties (NCPC
2188 2004a). The plan is a dynamic document, updated and supplemented as necessary. The plan
2189 framework includes two components: District Elements (developed by the District of Columbia
2190 government) and the Federal elements which are developed by the NCPC.

2191 The seven Federal Elements include: Foreign Missions and International Organizations; Federal
2192 Workplace; Transportation; Parks and Operations; Federal Environment; Preservation and
2193 Historic Features; and Visitors. The elements provide policies and guidance to establish goals
2194 and policies for federal development that encourage sustainable development and support the
2195 coordination of development with local and regional governments (NCPC 2004a). A Federal
2196 Urban Design Element is under development. The Federal Elements encourage sustainable
2197 development principles that include preserving open space and critical environmental areas;
2198 discouraging suburban sprawl while encouraging more compact development that is supported
2199 by adapting and reusing historic and underutilized buildings; encouraging mixed uses within
2200 federal facilities; supporting pedestrian-oriented development that also adds visual interest;
2201 concentrating intense federal development in proximity to high capacity public transit; and
2202 promoting transportation alternatives (e.g., public transit, walking, and bicycling) (NCPC
2203 2004a). The plan elements also encourage planning such that accessibility and security of
2204 federal facilities is in balance (NCPC 2004a). The Transportation Element includes a
2205 recommendation for the development of a Transportation Management Plan (TMP) by federal
2206 agencies that describes a program to reduce single-occupancy vehicle commuting patterns to
2207 reduce congestion and improve air quality. The TMP should include specific strategies to
2208 encourage more efficient employee commuting patterns (NCPC 2004b). The TMP process is
2209 discussed in more depth in Section 3.9, *Transportation*.

2210 **3.7.3.3 Comprehensive Plan of the National Capital – District Elements**

2211 Ten area element plans are found within the District Elements component of the Comprehensive
2212 Plan including the *Lower Anacostia Waterfront/Near Southwest Area Element*. This element
2213 emphasizes connecting the city through physical and social links that include: creating new
2214 public spaces, investing in transportation, transforming corridors, connecting greenways and
2215 waterways, and building federal and regional ties (DC Office of Planning Office [DCOP] 2006).

2216 Roads and parking lots cover 40 percent of the area surrounding Fort McNair and traffic lanes
2217 block access to the Southwest waterfront. While the National Mall and L'Enfant Square are
2218 nearby, there is poor accessibility and no clear pedestrian flow. Community organizations in the
2219 area insist on planning policies that include: neighborhood preservation, improving access to
2220 green spaces, developing intermodal transportation systems, and providing mixed-use spaces
2221 (DCOP 2006).

2222 Some of the projects in the vicinity of Fort McNair that are being implemented to meet goals of
2223 the Lower Anacostia Waterfront plan include: the creation of the Riverwalk Trail along the
2224 Anacostia waterfront; and redevelopment of the Southwest Waterfront as a destination that
2225 would blend maritime activity, commerce, culture, and residential housing. The redevelopment
2226 project would include over 700 residential units, 500 hotel rooms, 280,000 square feet of office
2227 space, 150,000 ft² of cultural space, and 14 acres of parks and open spaces. In addition, the 11th

2228 Street Bridges across the Anacostia River would be replaced with three new bridges as part of
2229 the Southwest Waterfront project and would improve traffic and pedestrian access. The
2230 Southwest Waterfront Development is the largest project to be constructed by the District
2231 Department of Transportation and the first river bridge replacement in Washington, D.C. in more
2232 than 40 years (DCOP 2006).

2233

2234 **3.7.4 Sustainability**

2235 Sustainable design principles in architecture and engineering can increase life and reduce
2236 operational costs of buildings. Current sustainability strategies for the U.S. Army include using
2237 innovative energy conserving techniques such as High Performance and Sustainable Building,
2238 Low Impact Building, and Leadership in Energy and Environmental Design (LEED®), as well as
2239 strategies and requirements contained within the Energy Policy Act of 2005.

2240 High performance sustainable building strategies include buildings that reduce the lifetime
2241 operational cost of a building by increasing water and energy efficiency, providing healthy
2242 indoor environments, and using construction materials in a sustainable manner.

2243 Low Impact Development (LID) uses land planning, design practices, and technologies that
2244 conserve and protect natural resources and reduce infrastructure needs. This allows land to be
2245 developed in a more cost-effective manner that mitigates environmental impacts. Sustainable
2246 building construction also considers the selection of environmentally preferred materials and
2247 reduction of waste from deconstruction and construction. Reuse of salvage materials can reduce
2248 costs of disposal and reduce the amount of landfill space required by projects.

2249 The LEED® Green Building Rating System is a certification program for building design,
2250 construction, and operation that promotes sustainable site development, water savings, energy
2251 efficiency, materials selection, and indoor environmental quality.

2252 Several federal laws require the use of sustainable building practices and include the Energy
2253 Policy Act of 2005, the Energy Independence and Security Act of 2007, and EOs 13423,
2254 *Strengthening Federal Environmental, Energy and Transportation Management* and 13514,
2255 *Federal Leadership in Environmental, Energy and Economic Performance*. Adhering to these
2256 requirements improves energy efficiency, reduces water use, and improves the overall quality of
2257 the environment.

2258 Effective with the military construction program for Fiscal Year 2008, U.S. Army policy for new
2259 construction is to build vertical buildings to the LEED® Silver standard. Horizontal construction
2260 (ranges, roads, and airfields) will incorporate Sustainable Design and Development features to
2261 the maximum extent possible. In addition, sustainable practices should be identified when
2262 performing maintenance and/or renovations on existing buildings. USACE has developed the
2263 Army LEED® Implementation Guide to assist Project Delivery Teams in meeting the U.S.
2264 Army's Sustainable Design and Development Policy for Building Projects. The RPMP complies
2265 with many principles of LEED® including compact development, improved connectivity and
2266 accessibility, promotion of pedestrian activity and reduced automobile use, and improved air
2267 quality.

2268 The U.S. Army construction goals are designed to meet EO 13423, *Strengthening Federal*
2269 *Environmental, Energy and Transportation Management*, recommendations for total operational
2270 reductions goals for energy and water conservation. Compliance with the EO is treated as a
2271 BMP.

2272 **3.7.5 Environmental Consequences of the Alternatives on Land Use**

2273 Natural, cultural, and operational constraints discussed in the sections on physical and biological
2274 resources, cultural resources, and hazardous materials confine development and affect land uses
2275 within Fort Myer and Henderson Hall and Fort McNair under both alternatives.

2276 **3.7.5.1 Alternative 1 – No Action**

2277 Alternative 1 would result in new construction, renovation, and re-purposing of existing
2278 buildings at JBM-HH to complete projects that would provide administrative and mixed use
2279 space including the construction of a new barracks and infrastructure. Individual projects would
2280 be in compliance with existing land use designations.

2281 Sustainable building practices and energy conservation measures would be applied during
2282 construction and would continue during the operation and maintenance of the facilities.

2283 **3.7.5.2 Alternative 2 – Implementation of RPMP**

2284 Under Alternative 2, areas within JBM-HH would be delineated into three development
2285 categories in accordance with constraints: unrestricted development, restricted development, and
2286 limited development (Figure 14 for Fort Myer and Henderson Hall, and Figure 15 for Fort
2287 McNair). Restricted development areas would be avoided to the extent practicable in the RPMP.
2288 The approximate acreages of land designated as developable and non-developable based on
2289 Figures 14 and 15 are presented in Table 7.

Figure 14. Fort Myer and Henderson Hall Developable Areas Map

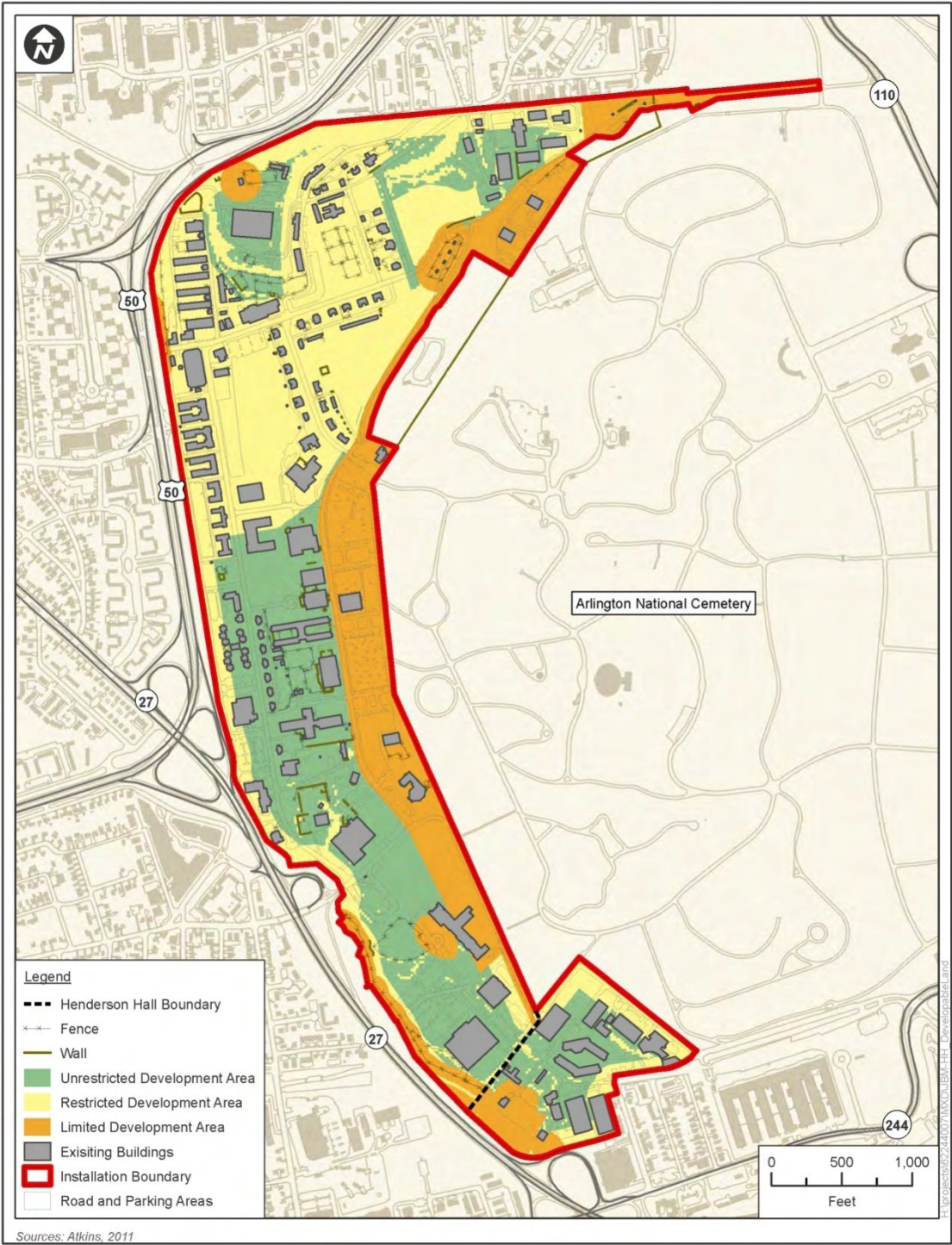
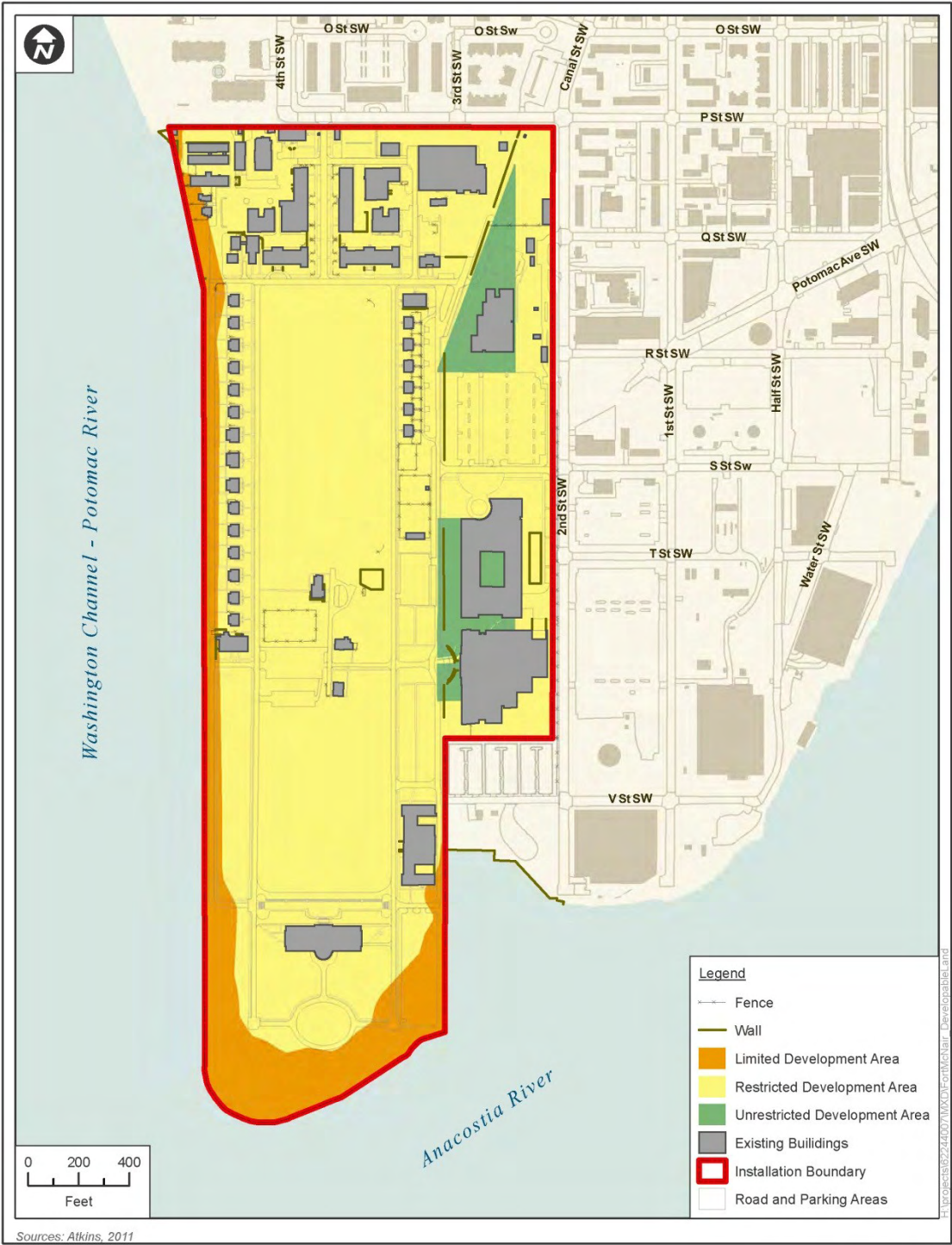


Figure 15. Fort McNair Developable Areas Map



2294 **Table 7. Approximate Acreages of Developable Land at JBM-HH by Land Use**
2295 **Designation**

Category of Existing Land Use	Fort Myer and Henderson Hall			Fort McNair		
	Total Acreage	Developable	Non-Developable	Total Acreage	Developable	Non-Developable
Community	142.2	99.2	43.0	54.7	47.2	7.5
Industrial	15.5	9.0	6.5	3.9	3.7	0.2
Professional/Institutional	14.3	13.8	0.5	34.8	32.6	2.2
Residential	29.3	27.9	1.4	11.6	8.7	2.9
Troop	71.1	62.9	8.2	2.7	2.7	0.0
Ranges and Training	0.0	0.0	0.0	0.0	0.0	0.0
Airfield	0.0	0.0	0.0	0.0	0.0	0.0
Total	272.5	213.0	59.5	107.7	95.0	12.7
Percent		78.1	21.9		88.2	11.8
Source: Atkins 2012.						

2296

2297 The RPMP would provide direction, vision, and framework for long-term orderly, compact, and
2298 sustainable development of JBM-HH, and as a result, all projects under Alternative 2 would be
2299 consistent with land-use designations and would minimize development in areas designated as
2300 restricted or limited to development due to presence of environmental, cultural, and/or
2301 operational constraints. Alternative 2 would optimize the redevelopment and re-purposing of
2302 existing developable properties consistent with land use designations, and in doing so would
2303 preserve the historic integrity of the installations and minimize new construction. The IDG
2304 design and planning guidance would be implemented to achieve efficient, dense, compact, and
2305 clearly defined use of installation lands that are consistent with the RPMP and the Federal
2306 Elements, and applicable District Elements of the Comprehensive Plan of the National Capital
2307 and Arlington County Comprehensive Plans.

2308 Constraints to development are the result of natural, cultural, and operational resource concerns
2309 that limit or restrict development; however, passive recreation projects are to some extent
2310 dependent on natural land uses and are low intensity uses that could occur within some
2311 constrained areas such as FEMA 100-year flood areas, and areas where maintaining viewsheds
2312 are important.

2313 The RPMP would incorporate the use of vegetative buffers and screening, pedestrian-friendly
2314 connectivity, street landscape improvements (street-scaping), and other mechanisms for
2315 JBM-HH to maintain the historic character of the installations and to increase the feeling of

2316 community for residents and visitors that use the amenities and services provided on the
2317 installations.

2318 Sustainability and energy conservation measures consistent with federal regulations and U.S.
2319 Army policies and strategies including LEED® would be incorporated into renovations and new
2320 construction to the extent practicable; however, it is expected that individual projects would add
2321 incrementally to the energy demand of each installation. New construction and redevelopment
2322 of existing buildings would provide a variety of opportunities to improve on design and
2323 operations, significantly reducing energy costs. Impacts may occur due to increased impervious
2324 surfaces resulting from development throughout the installation, and project-specific plans
2325 should incorporate BMPs and LID measures. Overall, project-specific plans and mitigation
2326 should be sensitive to avoiding and minimizing impacts.

2327 **3.7.6 Mitigation Measures**

2328 Projects would be initiated only after the environmental review has been completed and the
2329 required permits are obtained. Mitigation for land use would be incorporated project by project
2330 based on impacts to resources within each proposed project site. By planning and designing
2331 projects in compliance with the RPMP, as well as implementation of BMPs and LID measures,
2332 projects would be developed, constructed, and operated consistent with the land use
2333 designations, purposes, and policies and requirements of the installations and would be
2334 consistent with the National Capital and Arlington County's comprehensive planning. Projects
2335 should optimize sustainable practices. Sustainable practices to offset energy use could include:
2336 strategies to reduce energy used for heating and cooling buildings; use of passive energy design
2337 strategies; specifying energy-efficient equipment, appliances, and lighting; investigating green
2338 power purchases; banning the use of ozone-depleting substances in installation buildings; and
2339 monitoring and measuring performance of building systems to ensure optimization and
2340 incentives for conservation of energy by users.

2341 **3.8 AESTHETICS AND VISUAL RESOURCES**

2342 Visual resources consist of elements in both the natural environment and human made structures.
2343 Natural environment features include water bodies, vegetation, and mountains, and human made
2344 structures include buildings and support infrastructure. These resources impact view planes and
2345 influence the general appearance and aesthetic feel of the immediate and surrounding
2346 environments. Visual resources are analyzed to determine land use compatibility for new
2347 construction projects and the protection of important vistas and view planes.

2348 **Fort Myer**

2349 As an Installation located in a predominantly urban locale, there are few natural visual resources
2350 at Fort Myer and most are associated with the viewshed of ANC. The viewshed from ANC to
2351 Fort Myer is protected by a restricted development zone within Fort Myer consisting of woods,
2352 open fields, and parking lots, and building height restrictions protect the integrity of the
2353 viewshed from ANC from any development within Fort Myer. Visual resources at Fort Myer
2354 also consist of historical buildings and vistas of the Potomac River and Washington, D.C. Many

2355 of the historical buildings are located in a historic district in the northern part of the Installation
2356 and as such provide an aesthetic value.

2357 **Henderson Hall**

2358 Visual resources at Henderson Hall consist of views into ANC and vistas of the Washington
2359 Monument and the Pentagon from the northeastern and southeastern portions of the Installation.
2360 Residential housing and high rise structures can be seen from the southern view. The
2361 southeastern view is dominated by vegetative screening and fencing to buffer traffic noise from
2362 Washington Boulevard. To the northwest, the view is limited by the loading dock at the back of
2363 the Commissary, the Rader Clinic, and parking lots. There are no structures of historical
2364 significance at Henderson Hall, and due to the Installation's urban character, there are essentially
2365 no natural resources available to provide the aesthetics of open space or a natural landscape.

2366 **Fort McNair**

2367 Visual resources at Fort McNair consist of vistas of the U.S. Capitol, Washington, D.C., the
2368 Washington Channel, and the Potomac and Anacostia rivers. In addition, the combination of
2369 historical buildings, tree-lined streets, parade grounds, and a historical planned layout provides
2370 Fort McNair with a distinct visual appeal.

2371 **3.8.1 Environmental Consequences**

2372 **3.8.1.1 Alternative 1 – No Action**

2373 Project activities under Alternative 1 would result in short-term impacts to visual and aesthetic
2374 resources at JBM-HH from construction activities. Clearing, demolition, construction, and large,
2375 visible pieces of construction equipment would negatively affect visual aesthetics on the
2376 Installation for the duration of activities. Renovation and adaptive re-use of historic buildings
2377 within the Fort Myer Historic District, as well as use of building design and materials consistent
2378 with the historic environment of Fort Myer would maintain visual aesthetics. The restricted
2379 development zone within Fort Myer and building height restrictions would continue to protect
2380 the integrity of the viewshed from ANC from any development within Fort Myer. At Henderson
2381 Hall, vegetative screening and fencing to buffer traffic noise from Washington Boulevard would
2382 be maintained. No long-term effects to the visual resources of Fort McNair would be anticipated
2383 under Alternative 1.

2384 **3.8.1.2 Alternative 2 – Implementation of the RPMP**

2385 **Fort Myer and Henderson Hall**

2386 Alternative 2 provides a planning framework for viewsheds that would maintain the historic
2387 views of the Capitol and Washington, D.C. In addition, the viewshed framework plan would be
2388 consistent with the restricted development zone at Fort Myer by: (1) minimizing infill
2389 development within the viewshed of ANC; (2) maintaining views from the cemetery with a
2390 buffer; (3) restricting building height; and (4) ensuring that development along the eastern
2391 boundary of the Installation adjacent to ANC is compatible with cemetery land use and
2392 ceremonial functions. Some short-term impacts on the viewshed and aesthetics within the

2393 Installation and from ANC could be affected as a result of the presence of construction
2394 equipment; however, upon completion of individual projects resulting from Alternative 2,
2395 no further impacts to aesthetics and visual resources would be expected.

2396 The implementation of the RPMP at Fort Myer and Henderson Hall under Alternative 2 would
2397 use planning and design elements that provide landscaping and street-scaping and maintain the
2398 historic nature of the Installation to create a sense of neighborhood and community.

2399 In conjunction with the viewshed framework, an open space framework would also be
2400 implemented under Alternative 2 and would provide additional enhancement of aesthetics by
2401 preserving historic open space areas, and connecting recreation areas, playgrounds, etc. by a
2402 pedestrian network of landscaped corridors.

2403 Because Fort Myer and Henderson Hall encompass a compact, previously developed area,
2404 renovation of existing historic buildings would maintain the existing aesthetics and viewshed.
2405 Realignment of roadways would provide more efficient circulation and alleviates congestion
2406 which would also benefits aesthetics. Over the long-term, benefits would result from the re-
2407 vitalization of existing buildings and the redevelopment of previously developed areas, as areas
2408 are rehabilitated, demolished, cleared, and re-constructed with new landscaping or street-scaping
2409 and connected by pedestrian networks.

2410 **Fort McNair**

2411 A framework plan to maintain the viewshed of Fort McNair is an element of Alternative 2
2412 proposed for the Installation. The viewshed framework would restrict building on the western
2413 and southern Installation boundaries to preserve the viewshed of the Washington Channel of the
2414 Potomac River and the Anacostia River, and would ensure that building heights associated with
2415 new construction would maintain views. Low-density development in the northern section of
2416 Fort McNair would maintain historic views of Washington, D.C. Alternative 2 also preserves
2417 the views of historic buildings including the War College and would enhance the historic campus
2418 setting within Fort McNair. The RPMP removes the parking lot currently located between the
2419 National Defense University and the Anacostia River which results in improved aesthetics for
2420 ceremonial uses of the point. In addition, an open space framework maintains the Parade
2421 Ground and recreational sports fields as open space.

2422 **3.8.2 Mitigation Measures**

2423 Projects would be initiated only after the environmental review has been completed and the
2424 required permits are obtained. Planning and construction of all projects to be developed on
2425 JBM-HH through the RPMP would be expected to follow the guidelines set forth in the IDG. To
2426 protect the visual aesthetics of historic properties, redevelopment of National Register eligible
2427 buildings or within the Fort Myer Historic District would consider the design and history of the
2428 resource being affected. Consultation with the SHPOs and other interested parties would occur
2429 as required by Section 106 of the NHPA for any development that has the potential to affect
2430 cultural resources as described in *Section 3.5, Cultural Resources*. Preservation of existing
2431 vegetation buffers and vegetation enhancement of the landscape to provide visual screening
2432 between development and viewshed resources inside and outside of the installations would be

2433 implemented. Replanting and restoration of vegetation and landscaping after renovations or
 2434 construction activities would be incorporated into existing and future projects to maintain scenic
 2435 integrity.

2436 **3.9 TRANSPORTATION**

2437 **3.9.1 Greater Washington, D.C. Region Transportation**

2438 The Greater Washington Region contains an extensive transportation system, featuring three
 2439 airports, two major ports, Amtrak and commuter rail lines, Metrorail, bus systems, and the
 2440 regional Interstates I-95, I-395, I-66, and I-270 connecting the region to other major cities
 2441 (Figure 16). Although the Greater Washington, D.C. Region has a broad, reliable,
 2442 comprehensive transportation system, the road network is congested and strained. Road
 2443 congestion within the Greater Washington, D.C. area is considered among the worst in the
 2444 nation. Congestion in part has resulted from rapid development and residential land uses
 2445 (5.2 percent overall population growth since 2000) (U.S. Census 2010).

2446 **Surrounding Road Network**

2447 **Fort Myer and Henderson Hall**

2448 Fort Myer and Henderson Hall are surrounded by a number of major arterial roads, regional
 2449 roads, and freeway systems and in general, regional access to both installations is good. These
 2450 roadways serve as major commuter routes, providing access to the Rosslyn-Ballston Corridor,
 2451 Pentagon City, and central Washington, D.C. as well as outlying areas of northern Virginia and
 2452 Maryland (Figure 17).

2453 The following roads surround Fort Myer and Henderson Hall: U.S. Route 50; Virginia Routes
 2454 27, 244, and 110; and Interstates I-66, I-395, and I-295. Average daily traffic volumes for these
 2455 main roads are presented in Table 8.

2456 **Table 8. Average Daily Traffic Volume Surrounding Fort Myer and Henderson Hall**

Road	One Direction	Both Directions
U.S. Route 50 (Arlington Blvd.)	55,000	
VA Route 27 (Washington Blvd.)	33,000	74,000
Interstate 66	44,000	97,000
Interstate 395	52,000	172,000
VA Route 244 (Columbia Pike)	27,000	
VA Route 110 (Jefferson Davis Highway)	68,000	
Source: Atkins 2012.		

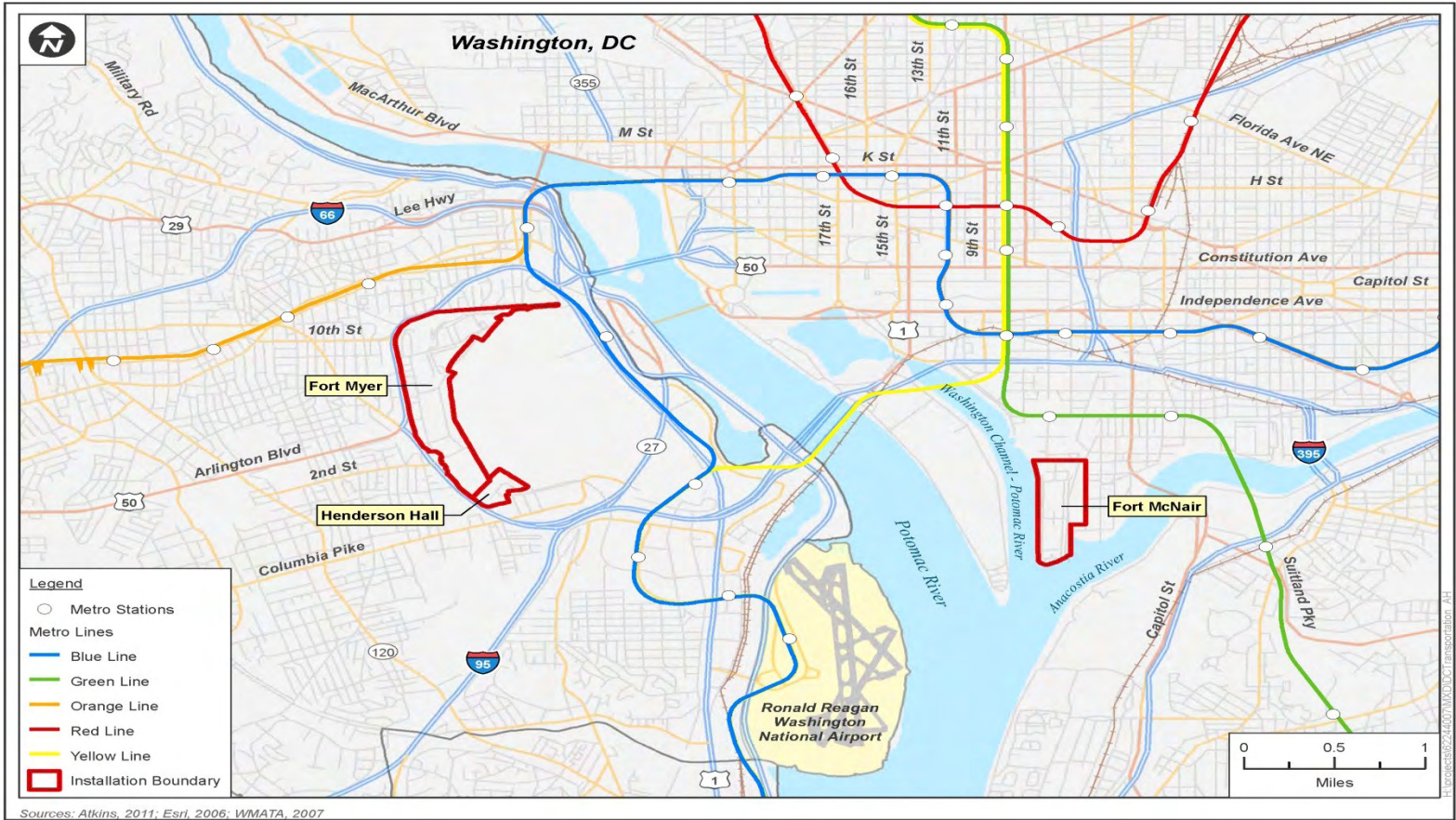
2457

Figure 16. Regional Transportation Map



2460

Figure 17. JBM-HH Surrounding Transportation Network



2461

2462 **Fort McNair**

2463 Because it is located within Washington, D.C., the street system surrounding Fort McNair is the
2464 typical L'Enfant grid pattern. Major arterial roads and highway systems in the vicinity of Fort
2465 McNair include: M Street/Maine Avenue, South Capitol Street SW, I-295, and I-395. South
2466 Capitol Street SW, M Street SW, and Maine Avenue are the major traffic thoroughfares for the
2467 area. Routes I-295 and I-395 are located north of the Southwest Waterfront and Near Southeast
2468 neighborhoods. Average daily traffic volumes for these main roads are presented in Table 9.

2469 **Table 9. Average Daily Traffic Volume Surrounding Fort McNair**

Roads	Average Daily Traffic Volume
P Street	11,900
1 st Street	3,800
Canal Street	2,700
2 nd Street	1,800
4 th Street	9,100
M Street/Maine Avenue	27,100
South Capitol Street	54,600
Interstate 295	101,300
Interstate 395	155,100
Source: Atkins 2012.	

2470

2471 **3.9.1.1 Fort Myer and Henderson Hall**

2472 **Public Transportation**

2473 There is no public transportation that provides direct access to the Installation. Metrorail and
2474 Virginia Railway Express (VRE) have stations in the vicinity; however, the stops are located
2475 more than 1 mile from the Installation and there are no connecting means of transportation from
2476 the Metro and VRE stops to the Installation. Metrobuses and Arlington Transit buses have
2477 routes with stops within blocks from public access gates but do not circulate on the Installation.
2478 Mount Vernon and Arlington Boulevard bike trails provide access to the Installation (Atkins
2479 2012).

2480 DoD buses provide Fort Myer and Henderson Hall with transit service to various other DoD
2481 facilities in the immediate area, with an end stop at the Pentagon. In addition, employees are
2482 eligible to use a government-wide van pool system; fares are reimbursed for participants.

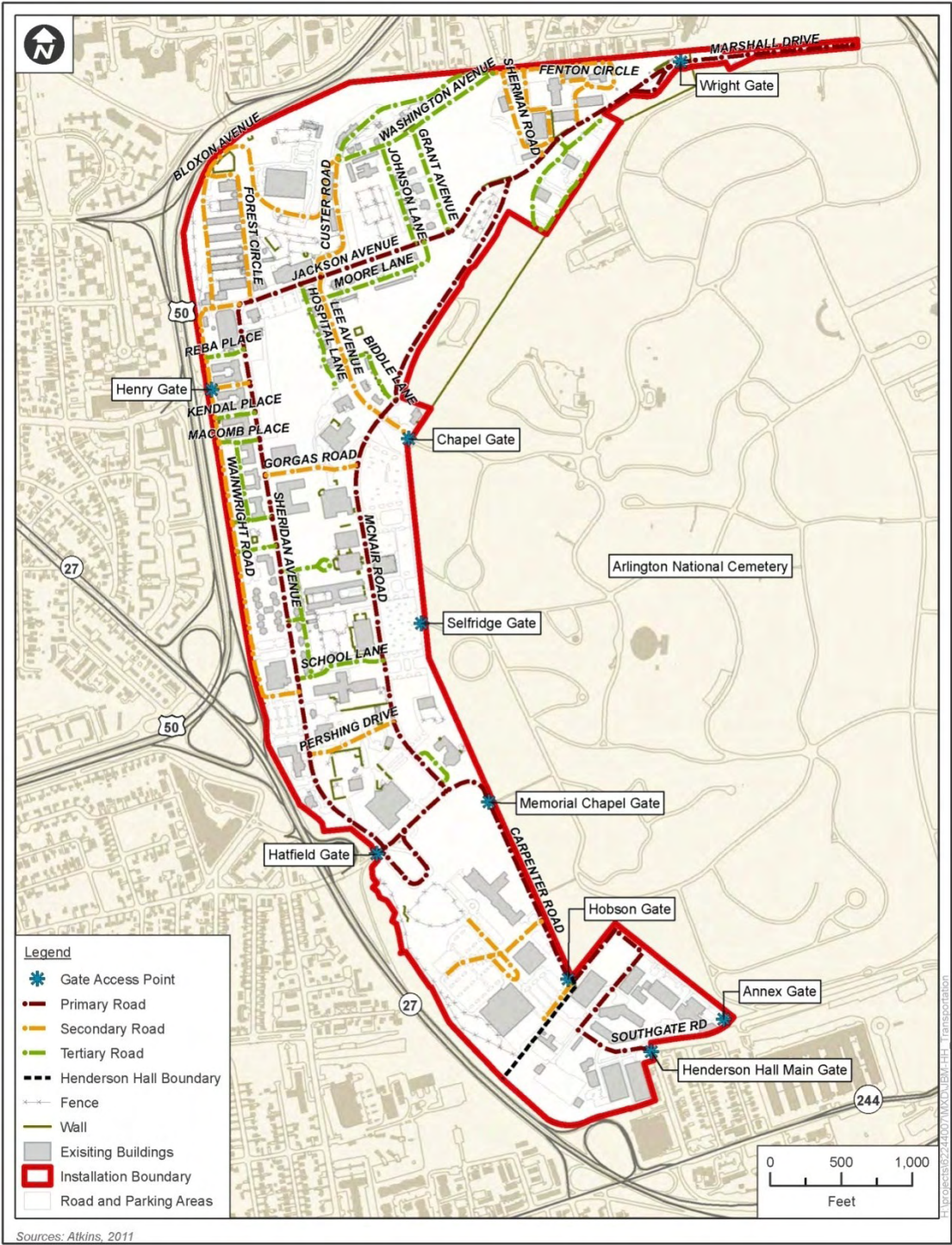
2483 **Access Points and Primary Roads**

2484 Currently, there are nine access control points (ACPs) on Fort Myer and Henderson Hall
2485 (Figure 18). Primary circulation within Fort Myer and Henderson Hall is along four north-south
2486 transit corridors. Minor numbered streets run laterally in an east-west direction to create a
2487 staggered grid pattern of irregularly formed blocks. The road network is comprised of the
2488 following primary roads:

- 2489 • Marshall Drive: This two-lane road connects Wright Gate to Virginia Route 110 and the
2490 extensive highway system with regional connections to Washington, D.C., northern
2491 Virginia, and Maryland.
- 2492 • Jackson Avenue: Jackson Avenue forms the only primary east-west access road, and
2493 connects Wright Gate to the northern facilities of the Installation. A two-lane, tree-lined
2494 road, Jackson Avenue spans the majority of the historic district. It is the only access road
2495 to the DPW area.
- 2496 • Sheridan Avenue: This two-lane road connects Jackson Avenue with Carpenter Avenue
2497 and Hatfield Gate and links the historic district with the community services area of the
2498 Installation. Lining this road are the main troop support facilities.
- 2499 • McNair Road: This is one of two roads that runs in a north-south direction, and connects
2500 Jackson Avenue to Carpenter Road, and providing direct access to community service
2501 facilities that include: the dining facility, library, Commissary, bank, and Memorial
2502 Chapel. Troop facilities are located occasionally along the road such as The Old Guard
2503 building and Arlington National Chapel. A two-lane road, McNair Road is the most
2504 traveled as it provides the majority of parking on Fort Myer which lies adjacent to the
2505 east as a large parking lot.
- 2506 • Carpenter Road: This two-lane road is the primary access from Hatfield Gate to the
2507 southern section of Fort Myer, and connects to Henderson Hall. It forms part of the east
2508 boundary of the Installation adjacent to ANC and provides access to heavily used,
2509 community service facilities like the CDC, Rader Health Clinic, the Commissary, and the
2510 future privatized army lodge facility.
- 2511 • Southgate Road: This two-lane road provides the main circulatory spine for the Marine
2512 Corps within Henderson Hall and connects the main gate to the central core of Henderson
2513 Hall. Most soldier support facilities are located along Southgate Road including the
2514 MCX, administration facility, barracks, and pool facility.

2515

Figure 18. Fort Myer and Henderson Hall Internal Circulation Map



2518 **Secondary Roads**

2519 Secondary roadways on Fort Myer and Henderson Hall include: Pershing Drive, Custer Road,
2520 Gorgas Street, Bloxon Street, and Wainwright Road. The roads are two-lane with traffic
2521 traveling in opposite directions. Most of these roads provide direct access to facilities, are
2522 narrower, and run perpendicular to the primary roads.

2523 Several secondary roads on Fort Myer are one-way roads and include: Forest Circle, Sherman
2524 Road, Stewart Road, and Fenton Circle. The roads are generally one or two lanes and are
2525 narrow. In general, the roads are directly adjacent to facilities with little or no landscape
2526 treatment. Most traverse parking lots, or are incorporated into areas of large paving with painted
2527 guides to delineate the traffic flow.

2528 **Tertiary Roads**

2529 The majority of the tertiary roads on the Installation are narrow, one-way roads that either
2530 traverse parking lots or lead to small parking areas or private garages. The roads include: School
2531 Lane, Abrams Lane, Pitcher Place, Macomb Place, Henry Place, Reba Place, Johnson Avenue,
2532 Grant Avenue, and Washington Avenue. These roads also act as cross avenues that connect
2533 primary roads to secondary roads on the Installation.

2534 Figure 19 presents the circulation constraints identified on Fort Myer and Henderson Hall.

2535 **Pedestrian Access**

2536 Fort Myer and Henderson Hall has an extensive network of pedestrian walkways that connect
2537 most areas of the Installation. However, pedestrian access is a point of concern at JBM-HH and
2538 there are three areas within the Installation that lack sidewalks and cause vehicular/pedestrian
2539 conflicts. The first area is Forest Circle which encircles the stables, storage warehouses, and
2540 thrift shop. The second area is adjacent to Forest Circle at Building 205. The third area is within
2541 the complex of DPW facilities. Besides these areas of concern, the large parking lot along the
2542 east side of McNair Road presents several points of pedestrian-vehicular conflicts where
2543 pedestrians cross the primary roadway despite designated pedestrian cross-walks.

2544 **Parking**

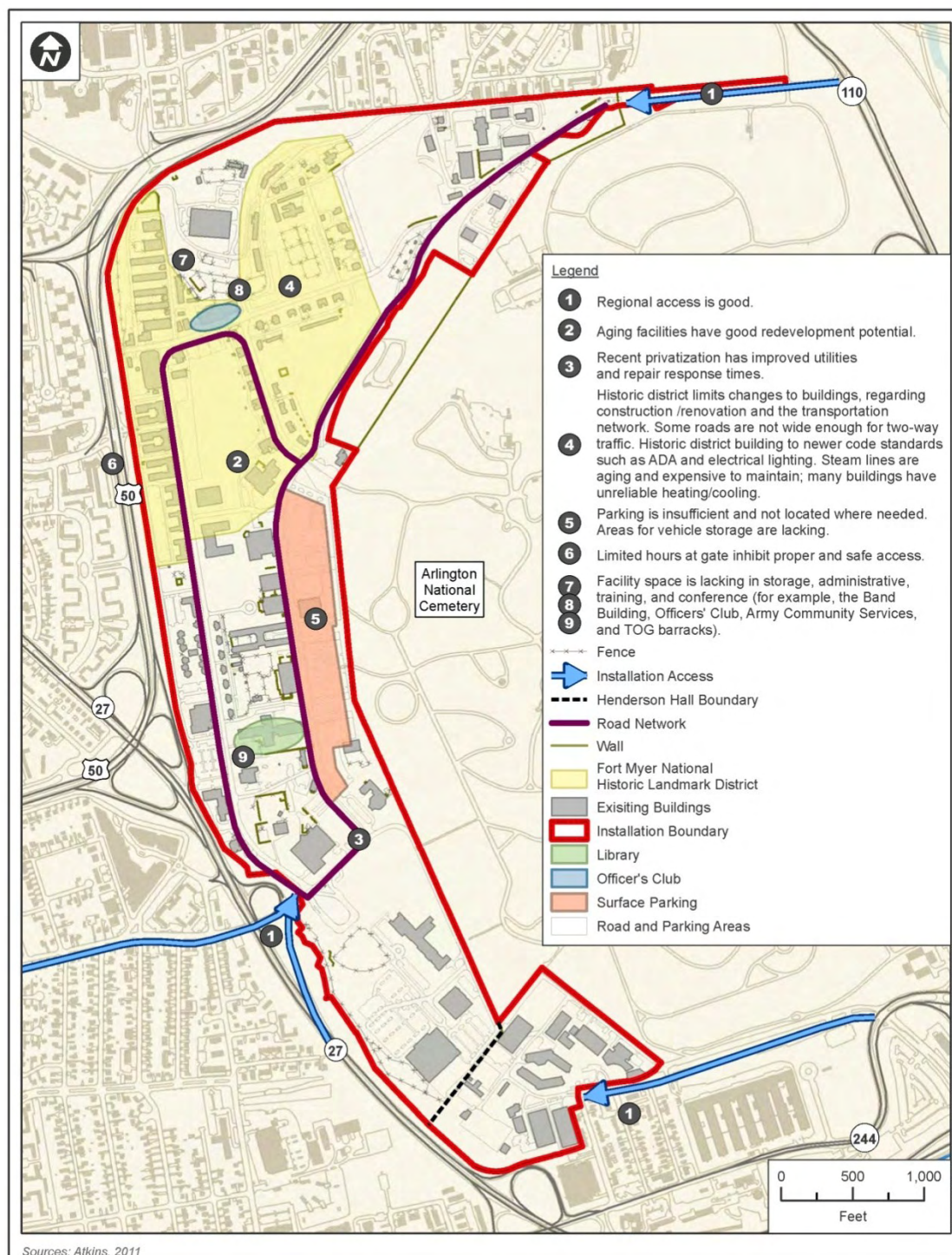
2545 Although an adequate number of parking spaces exist at Fort Myer and Henderson Hall, the
2546 distribution of spaces is inconsistent with the locations of major facilities and areas that are
2547 destinations and responsible for generating the majority of traffic on the Installation. As a result,
2548 parking facilities as they currently exist on the Installation do not meet current needs.

2549 Fort Myer parking facilities are also used by shuttle commuters for travel to the Pentagon or
2550 other DoD destinations.

2551

2552
2553

Figure 19. Fort Myer and Henderson Hall Infrastructure Opportunities and Constraints Map



2554

2555 **3.9.1.2 Fort McNair**

2556 **Public Transportation**

2557 Fort McNair is accessible by public transportation; the northern portion of the Installation is
2558 approximately 1,320 ft from a Metro Station and the Reston commuter bus stops at the main gate
2559 of Fort McNair on P Street. Metrobus service, DC Circulator, and the Maryland Transit
2560 Administration provide bus service near the Southwest Waterfront neighborhoods. Similar to
2561 Fort Myer and Henderson Hall, the federal shuttle bus system provides access to other DoD
2562 facilities.

2563 Two Metrorail stations are in the vicinity of Fort McNair. Amtrak, Maryland Rail Commuter
2564 (MARC) train, and VRE service provide access to Union Station; a shuttle bus runs from Union
2565 Station to the United States Coast Guard Building on 2nd Street.

2566 Bike lanes provide limited access in the Southwest Waterfront neighborhood via disconnected
2567 sections of off-street trails and on-street routes.

2568 **Access Points and Primary Roads**

2569 In general, the northern portion of Fort McNair has poor traffic circulation. Near the National
2570 Defense University, traffic circulation is good; however, road widths are insufficient to handle
2571 on-street parking in certain areas.

2572 There are four ACPs on Fort McNair and the new ACP on Second Street brings the heaviest
2573 traffic onto narrow streets. The streets on the Installation are primarily two lanes, approximately
2574 18-20 ft in width. First, Second, and Fourth Avenues, along with D Street, operate as one-way
2575 streets south of B Street. Second Avenue is one-way going south, while 4th Avenue is one-way
2576 going north. Together they effectively form a traffic loop around the Installation south of
2577 B Street in the Installation, and are connected via E Street (the southernmost street on the
2578 Installation) (Figure 20). Overall traffic flow is dependent on this circulation.

2579 Streets north of B Street are the most congested, caused by narrow streets and the density of
2580 development (Atkins 2012).

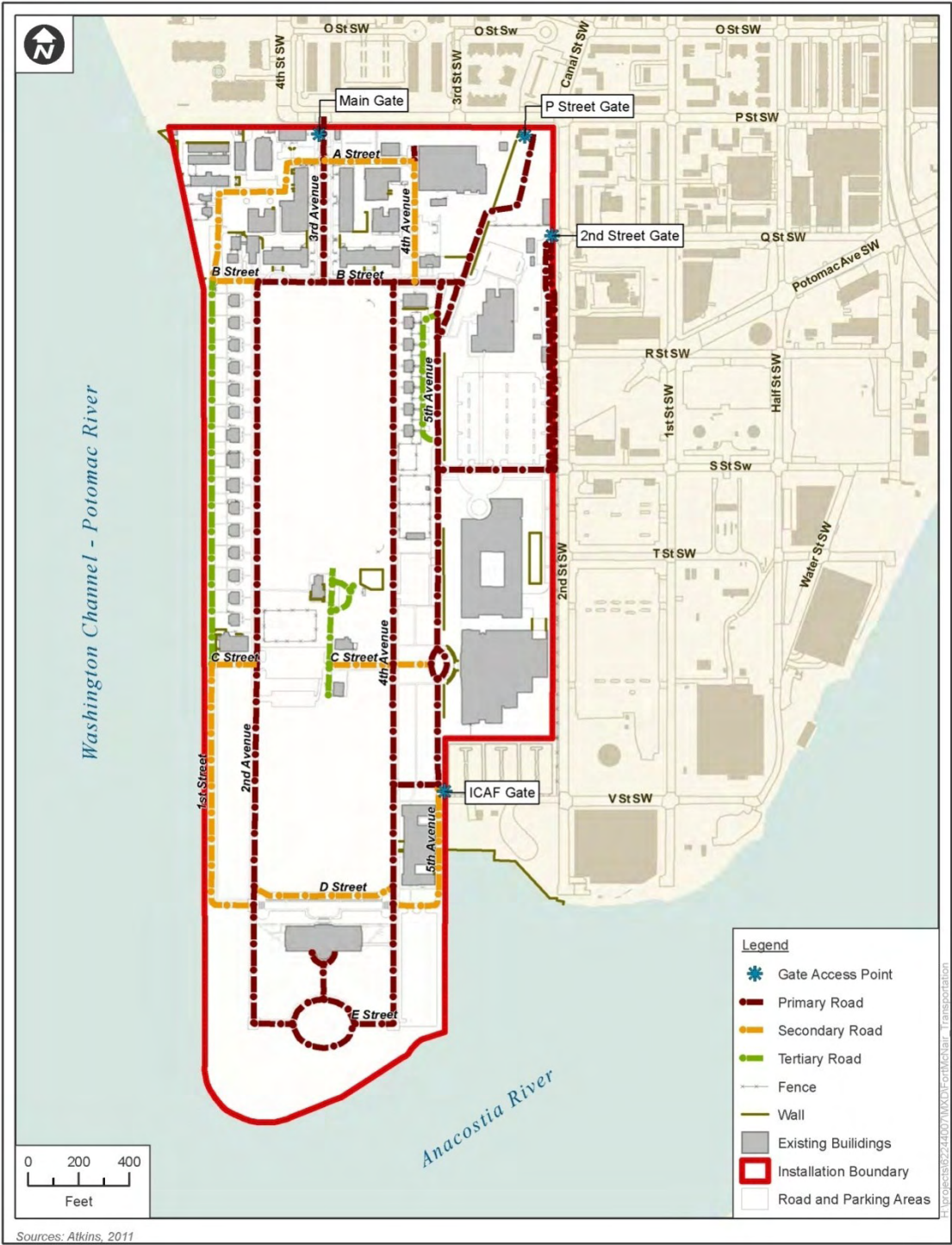
2581 **Primary Roads**

2582 Fifth Avenue acts as the main road for the Installation. All vehicle access enters through the new
2583 Second Street Gate. South of B Street, Fifth Avenue provides access to a new fitness center and
2584 Lincoln Hall, as well as Eisenhower, Marshall, and Roosevelt Halls (Atkins 2012).

2585 **Secondary Roads**

2586 Secondary roadways on Fort McNair include: A Street, B Street, C Street, Second Avenue, Third
2587 Avenue, and Fourth Avenue. These roads provide north-south, east-west access throughout the
2588 Installation. They are both one-way and two-way streets; however, some streets have sharp blind
2589 corners that make access difficult for both vehicles and pedestrians.

Figure 20. Fort McNair Internal Circulation Map



2592 **Tertiary Roads**

2593 Tertiary roadways on Fort McNair include: First Avenue, D Street, and E Street. These roads
2594 provide access to other roads, as well as to buildings throughout the installations. E Street is a
2595 one-way street with a roundabout connecting Second and Fourth Avenues, which are also one-
2596 way streets.

2597 **Pedestrian Access**

2598 There is an uneven distribution of sidewalks throughout the Installation. Pedestrian access is
2599 adequate south of B Street; however, north of B Street is a challenge for pedestrians. Blind
2600 intersections, a lack of sidewalks, and streets that become aisles for movement within parking
2601 lots without warning make pedestrian access above B Street difficult.

2602 **Parking**

2603 Parking at Fort McNair is provided for employees and residents; however, additional parking is
2604 needed to support other uses such as National Defense University students and short-term
2605 demands that include conferences at National Defense University, use of recreational centers in
2606 the early morning hours, and visitors to Installation buildings.

2607 There is limited space for parking expansion at Fort McNair; any significant expansion would
2608 require the construction of structured aboveground parking. Figure 21 presents the circulation
2609 constraints at Fort McNair.

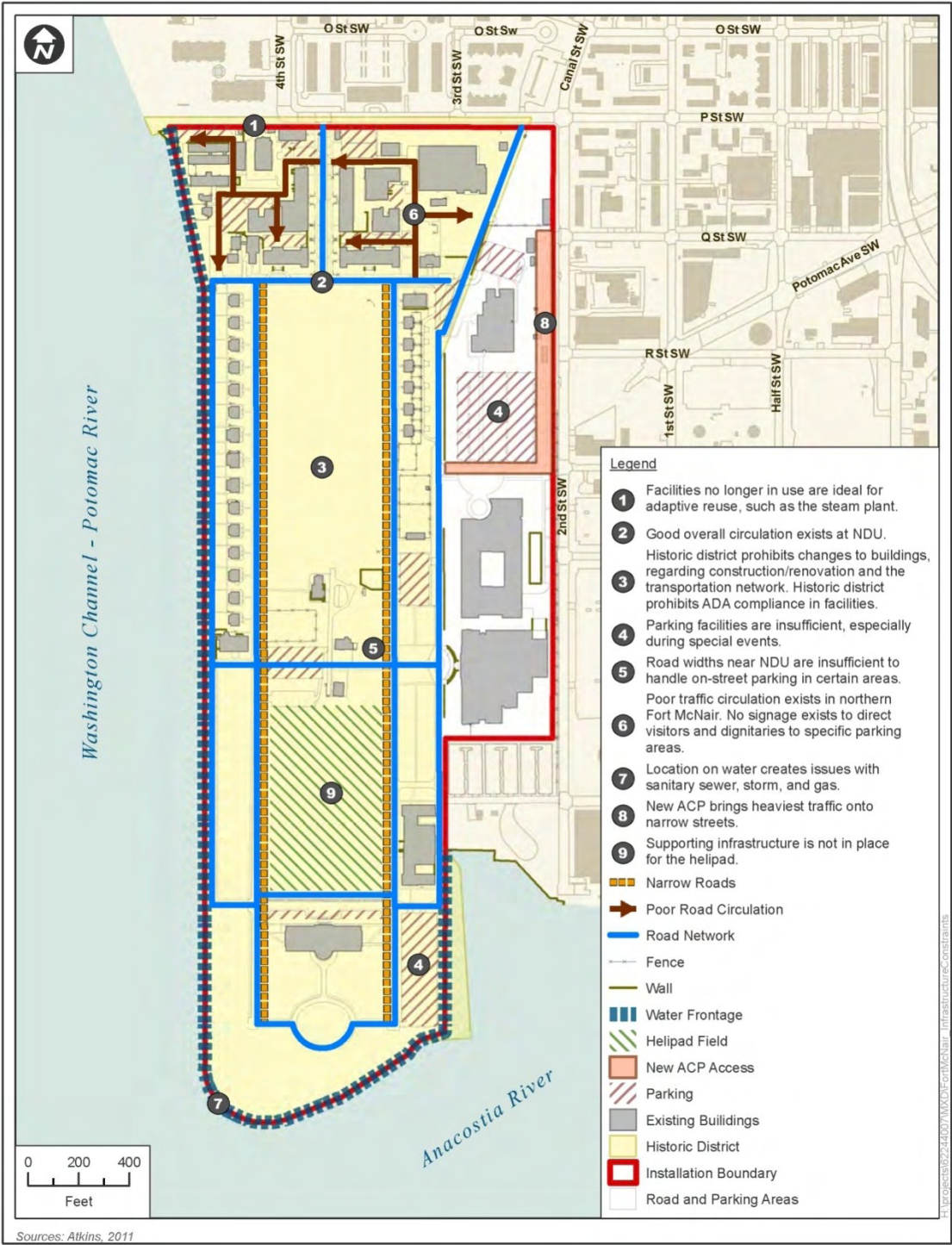
2610 **3.9.2 Transportation Plans and Projects**

2611 **3.9.2.1 Fort Myer and Henderson Hall**

2612 **Arlington Master Transportation Plan**

2613 As of 12 February 2011 the Streets element of the Arlington Master Transportation Plan was
2614 adopted completing the process of updating the Plan. The Arlington Master Transportation Plan
2615 seeks to improve transportation systems in Arlington County through 2030 and contains goals,
2616 policies, and six modal elements that provide more detailed guidance support (Streets, Transit,
2617 Pedestrian, Bicycle, Parking and Curbspace Management, and Transportation Demand &
2618 System Management) (Arlington County Department of Environmental Services [ACDES]
2619 2011).

Figure 21. Fort McNair Infrastructure Opportunities and Constraints Map



2622 **Pentagon City Multi-Modal Transportation Improvements**

2623 Arlington County and the Washington Metropolitan Area Transit Authority are working together
2624 on transportation projects in Pentagon City, particularly at the intersection of 12th Street and the
2625 Pentagon City Metro Station.

2626 The primary objective of the project is to provide safe, convenient, and attractive access to
2627 Pentagon City for pedestrians, cars, and mass transit. The Pentagon City Metro Station is a key
2628 transportation transfer facility and within 2.5 miles of Fort Myer. It provides a transfer point for
2629 I-395 and acts as the primary transfer station when the Pentagon Metro Station cannot be
2630 accessed due to security reasons. In addition, many people work, shop, and live in Pentagon
2631 City, making it a busy, multi-modal transportation center (ACDES 2010).

2632 **Virginia Department of Transportation (VDOT) Projects and Studies**

2633 Although the plan for High Occupancy Vehicle (HOV) Toll lanes (HOT lanes) on I-95 and I-395
2634 has been cancelled by VDOT, several projects in the vicinity of Fort Myer are under
2635 construction, in design phase, or are being proposed. These include: interchange improvements
2636 for U.S. Route 50 at 10th Street, U.S. Route 50 at Courthouse Road, and bridge reconstruction
2637 and widening at Glebe Road over U.S. Route 50, all of which are currently under construction;
2638 new interchange at Virginia Routes 27 and 244, in design phase, and a conceptual proposal for
2639 improvements to an exit ramp from the HOV lane on I-395 to Eads Street near the Pentagon
2640 (VDOT 2011).

2641 **TransAction 2030**

2642 TransAction 2030 is a long-range transportation plan for the counties of Arlington, Fairfax,
2643 Loudoun, and Prince William and the cities of Alexandria, Fairfax, Falls Church, Manassas, and
2644 Manassas Park. This regional transportation plan considers a mix of highway, transit, bicycle,
2645 and pedestrian projects for the region and requires \$16.6 billion in additional funding over the
2646 next 25 years. Some of the improvements planned will affect the area in the vicinity of Fort
2647 Myer and Henderson Hall (Northern Virginia Transportation Authority [NVTa] 2006).

2648 **Columbia Pike Initiative**

2649 The Columbia Pike Initiative supports the vision of improving Columbia Pike by turning
2650 Columbia Pike into a “Main Street” for South Arlington. The principles guiding this vision
2651 include public transportation improvements, prioritization of pedestrian/bicycle needs, and
2652 support for planned and future development. The street will be shared by pedestrians, bicyclists,
2653 transit riders, and automobiles. This initiative will affect the Columbia Pike corridor in
2654 Arlington County to the southwest of Fort Myer and Henderson Hall (Department of Community
2655 Planning, Housing and Development [DCPHD] 2005).

3.9.2.2 Fort McNair

Constrained Long Range Plan

The Constrained Long-Range Plan of the National Capital Region Transportation Planning Board (TPB) identifies studies, capital improvements, actions, and strategies for the NCR from 2008 to 2030. This plan is financially constrained; therefore, it only includes projects that the region can afford to build and operate. Over 750 projects affecting Fort McNair and the area comprising JBM-HH are in the plan, including: highway improvements, new HOV lanes, new transit lines including Metrorail, new bicycle routes and trails, and pedestrian improvements (TPB 2010).

Each year the NCR TPB prepares a 6-year Transportation Improvement Plan (TIP). This plan selects priority projects from the Constrained Long Range Plan (TPB 2010).

South Capitol Street Project

The South Capitol Street Project encompasses a series of projects to improve the multimodal mobility in the South Capitol Street area. A major part of this project will be the replacement of the Frederick Douglass Memorial Bridge to improve pedestrian and automobile flow. This project is currently in progress (District Department of Transportation [DDOT] 2011a).

Anacostia Waterfront Initiative

DDOT, in conjunction with the Anacostia Waterfront Initiative (AWI), has established a team within DDOT's Infrastructure Project Management Administration to focus on transportation projects exclusively in the AWI area. The vision of DDOT and AWI is to create a transportation system in the AWI area that moves people via transit, light rail, bike/pedestrian trails, and automobiles (DDOT 2011b).

3.9.3 Environmental Consequences

3.9.3.1 Alternative 1 – No Action

Implementation of Alternative 1 would result in small local impacts to transportation resulting from the increase in the number of daily vehicles accessing Fort Myer as a result of the relocation of The Old Guard to Fort Myer from Fort McNair. Because the Fort McNair and Fort Myer installations are not substantially distant from one another, commuters would be expected to shift their daily trips to their new work location and increase traffic in the vicinity of Fort Myer and Henderson Hall, but would not significantly increase daily regional traffic.

Current parking conditions are not adequate for current visitor, staff, and resident use and circulation patterns present congestion and safety issues. There are many narrow, one-way roads and areas where roads bisect parking lots. The main gate accessing Fort Myer and Henderson Hall also becomes congested. The existing road networks and parking conditions would remain under Alternative 1; however, road improvements on Henderson Hall would result in beneficial impacts to access and circulation.

3.9.3.2 Alternative 2 – Implementation of the RPMP

Fort Myer and Henderson Hall

Current parking conditions are not adequate for current visitor, staff, and resident use and circulation patterns present congestion and safety issues. There are many narrow, one-way roads and areas where roads bisect parking lots. The main gate accessing Fort Myer and Henderson Hall also becomes congested. The proposed RPMP would provide opportunities for increased development and a potential increase in the working and residential population on the Installation. These changes would require additional parking and circulation improvements that would be developed prior to or concurrent with development projects.

The RPMP includes a circulation framework plan that would improve traffic circulation, parking, and pedestrian access, although the existing roadway at Fort Myer and Henderson Hall would be maintained. The framework would create a loop road around the central core of Fort Myer and Henderson Hall providing easy access to high density areas. Where current roads bisect parking areas resulting in undefined conditions, circulation would be improved by realigning and separating roads and parking areas. As necessary, other roads would be widened to incorporate additional traffic resulting from the growth of the Installation population. Improved access to and from Henderson Hall and Fort Myer facilities would improve Joint Base functions. Pedestrian access would be improved by a network of pedestrian corridors between the Town Center and Troop areas as well as the Historic District, recreation centers, and open space. This network would reduce the need for vehicular use on the north and central portions of the Installation and provide pedestrian-oriented focus areas. The redesign of the main ACP at Hatfield Gate would ease congestion and meet the AT/FP requirements. Over the long term these circulation projects would improve Installation accessibility, increase safety for pedestrians and vehicles and provide efficient mechanisms for multi-modal travel.

Creation of tiered parking structures would occur as needed within the footprints of existing open surface parking areas and would not only result in an increase in parking spaces, but would minimize an increase in the amount of impervious surface otherwise required for the same number of parking spaces in an open parking lot. Areas where parking is consolidated would offer opportunities for reclaiming abandoned areas for potential development. Traffic improvements would increase the amount of impervious surface where roads are widened and turn lanes are created; however, in general, the amount of impervious surface would not increase substantially.

In order to provide site-specific improvements to access and circulation for Fort Myer and Henderson Hall, additional traffic studies would be required and design plans for road and parking improvements would have to be developed.

Employment Centers at Fort Myer and Henderson Hall are located beyond the 2,000-ft distance from Metrorail stations. As a result of the distance to Metrorail and potential parking constraints, significant improvements in public transportation access would be required to provide visitors and employees of Fort Myer and Henderson Hall with other modes of transit to and from the installations.

2732 **Fort McNair**

2733 The existing road alignment on Fort McNair is expected to support future development with
2734 minor alterations that would provide widening and dedicated turn lanes and improvements to
2735 ACPs. An increase in impervious surfaces would be expected as a result of widening and the
2736 addition of turn lanes; however, the amount of additional impervious surface from road
2737 improvements would not be significant.

2738 USACE regulations specify parking stall quantities based on facility type and the NCPC
2739 regulations focus on the service area and distance to Metrorail facilities (USACE 1998; NCPC
2740 2004b). NCPC recommends a parking ratio of one parking space per every four employees for
2741 federal facilities within the Historic District of Columbia Boundaries (NCPC 2004b). Because
2742 Fort McNair is located within the Historic District of Columbia Boundaries, the total number of
2743 parking spaces for Fort McNair should be based on NCPC requirements. Even though Fort
2744 McNair is in an urban location, most of Fort McNair is beyond 2,000-ft of a Metrorail station. The
2745 distance from Metrorail for a majority of employees and visitors to Fort McNair makes it
2746 difficult to access the Installation using public transportation. Additional parking capacity would
2747 be limited by a lack of available space for additional parking structure development.

2748 **3.9.4 Mitigation Measures**

2749 Projects would be initiated only after the environmental review has been completed and the
2750 required permits are obtained. Additional traffic studies in the vicinity of and within JBM-HH
2751 would provide opportunities to develop multi-modal access and increased parking. Aligned with
2752 the RPMP, the Transportation Management Plan (TMP) 2012 provides recommendations to
2753 reduce single-occupancy vehicles as a mode choice for JBM-HH commuters and improve
2754 parking ratios to NCPC standards. Traffic studies may be required as projects are developed
2755 throughout the time frame of the PEA. If initiated, traffic studies would consider impacts to both
2756 onsite and offsite roads, as applicable.

2757 LID design factors including opportunities for use of pervious paving materials would be
2758 incorporated into the design phase where feasible. Detailed project plans for transportation
2759 improvements to improve circulation as the population increases would also be incorporated into
2760 projects during the design phase.

2761 As development occurs on JBM-HH, opportunities that would incorporate strategies for reducing
2762 single occupancy vehicle trips to the installations would be considered as incorporated into the
2763 TMP. Fort McNair is especially conducive to consideration because a mass transit network is in
2764 close proximity. At JBM-HH, the Columbia Pike Initiative proposes expanded commuter transit
2765 service into the Pentagon area and has approved a modified streetcar that would provide
2766 additional high-capacity service.

2767 **3.10 UTILITIES**

2768 Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic*
2769 *Performance* directs all federal agencies to develop and implement strategies to reduce
2770 greenhouse gas emissions and increase sustainability. Utilities include electrical distribution,
2771 water, natural gas systems, central heating and cooling, and wastewater systems.

2772 **3.10.1 Potable Water Supply and Distribution**

2773 **Fort Myer and Henderson Hall**

2774 Potable water and water for fire emergencies is delivered to Fort Myer by the Arlington County
2775 water system, which ultimately obtains its water from the Potomac River. The water is treated at
2776 the Dalecarlia Water Treatment Plant by the Washington Aqueduct Division, an agency of
2777 USACE, Baltimore District.

2778 Water is provided to the Installation via a 10-in., cast iron water main near the Hatfield Gate,
2779 which is located on the southern and western portion of the Installation near the U.S. Route 50
2780 and Virginia Route 27 interchange. There is an existing, unused, 500,000-gallon, aboveground
2781 water storage tank located behind Building 241, off Sheridan Avenue in the northwest corner of
2782 Fort Myer.

2783 The existing water system within the Installation consists of over 76,000 ft of pipe and laterals
2784 ranging from ½- to 14-in. diameter and made of cast iron, ductile iron, and polyvinyl chloride
2785 (PVC). Department of Public Works staff indicates that within the last 5 years a large number of
2786 water lines have ruptured throughout the Installation's system. Approximately 1,849 ft of in-
2787 place abandoned pipe which previously serviced Henderson Hall and approximately 81 fire
2788 hydrants are located at Fort Myer and Henderson Hall. The Installation fire department has
2789 expressed problems with existing water pressure. Currently, there is no separate water system
2790 for fire hydrants.

2791 Fort Myer and Henderson Hall use approximately 0.33 million gallons per day (mgd) throughout
2792 the year, with peak usage occurring in June (15 million gallons per month). Capacity of the
2793 Arlington County water treatment facility is currently being upgraded; capacity will increased
2794 from the current 30 mgd to 40 mgd (Arlington County 2011d).

2795 **Fort McNair**

2796 The water supply for Fort McNair is the Potomac River and is delivered to Fort McNair by
2797 DC Water via a 12-in. ductile iron water main on the west side of 3rd Avenue on the north side of
2798 the Installation; no water storage tanks are located on the Installation. The water system within
2799 the Installation boundaries is made up of over 2,400 ft of pipe and laterals ranging from 1 to
2800 12 in. pipe materials include cast iron, ductile iron, and PVC; there is approximately 549 ft of
2801 abandoned pipe of various diameters. There are approximately 44 fire hydrants on the
2802 Installation.

2803 Fort McNair uses approximately 0.10 mgd throughout the year, with peak usage occurring in
2804 October of 3.2 million gallons per month. Currently the water system capacity is sufficient for
2805 usage.

2806 **3.10.2 Sanitary Sewage Collection and Treatment**

2807 **Fort Myer and Henderson Hall**

2808 Fort Myer owns the sanitary system on the Installation, and Arlington County is the supplier of
2809 sanitary services. Sanitary waste is treated at Arlington County's Four Mile Run Water
2810 Treatment Control Plant. The treatment facility's current capacity is 30 mgd; however, because
2811 of the continued growth and development in the area, the system is undergoing modernization
2812 and expansion to allow treatment of 40 mgd (Arlington County 2011d). The existing system on
2813 the Installation includes 66,097 ft of sanitary pipe with sizes ranging from 2 to 30 in. cast iron,
2814 PVC, and concrete pipe. The sanitary sewer flow is approximately 0.33 mgd throughout the
2815 year, with peak usage occurring in June. New construction on Fort Myer and Henderson Hall
2816 has required joining new pipes to the existing pipe system which has resulted in weakening some
2817 of the existing pipes.

2818 **Fort McNair**

2819 Fort McNair owns the sanitary sewer system on the Installation, and the existing system includes
2820 over 16,000 ft of pipe with sizes ranging from 2 to 15 in. cast iron, PVC, and concrete pipe. The
2821 Installation's sanitary sewer flow is approximately 0.15 mgd throughout the year, with peak
2822 usage occurring in October. Wastewater is treated at the Blue Plains Advanced Wastewater
2823 Treatment Plant administered by DC Water. The facility has a capacity of 370 mgd and a peak
2824 capacity of 1.076 billion gallons per day, which is adequate to continue to accept wastewater
2825 from Fort McNair through the timeframe of the RPMP.

2826 **3.10.3 Electricity**

2827 **Fort Myer and Henderson Hall**

2828 The existing electrical system is owned by Dominion Virginia Power (Dominion), who also
2829 supplies electricity to the Installation. In August 2007, a contract with Dominion to privatize the
2830 electrical system for Fort Myer was signed and Dominion is in the process of upgrading the
2831 entire electrical system on Fort Myer to be compliant with their standards. Dominion is also
2832 constructing a new 230-kilovolt (kV) switching substation located at the north end of Fort Myer
2833 and constructing one new 230-kV underground transmission line to improve service reliability to
2834 Fort Myer and the Rosslyn-Ballston area of Arlington County. The substation and transmission
2835 line are part of a project to provide reliable power to Arlington County customers consistent with
2836 mandatory North American Electric Reliability Corporation Reliability Standards for
2837 transmission facilities and Dominion's planning criteria (DEM-JBM-HH 2011). Negotiations
2838 are ongoing for the privatization of Henderson Hall electrical lines with Dominion and plans to
2839 place the remaining above ground lines below ground (Atkins 2012).

2840 Arlington County proposes to co-locate fiber optic communications cables with the Dominion
2841 230-kV underground line project. These cables would supplement Arlington County's long-term
2842 plans to upgrade transportation communications with fiber optic transmission lines, including
2843 connecting Courthouse Plaza with Pentagon City/Crystal City areas via fiber optics (DEM-JBM-
2844 HH 2011).

2845 There are three main circuits that feed the installation; two are load circuits and one is an
2846 alternate. The existing Installation electric system consists of 6,313 ft of primary overhead lines,
2847 439 ft of secondary overhead lines, 31,779 ft of primary underground lines, and 20,836 ft of
2848 secondary underground lines.

2849 Fort Myer and Henderson Hall use approximately 66,000 kilowatt hours (kWh) per day
2850 throughout the year, with a peak usage in June of 3,500,000 kWh per month. Dominion's system
2851 upgrades would provide adequate electric capacity to Fort Myer and Henderson Hall; however,
2852 electric systems within buildings to be renovated may require upgrading during renovations.

2853 **Fort McNair**

2854 Currently the electricity to Fort McNair is supplied by PEPCO, but the lines are owned by
2855 Dominion Virginia Power. PEPCO is currently undertaking a 5-year Reliability Enhancement
2856 Plan to improve reliability of the power supply to its customers (PEPCO 2010). With the
2857 exception of Buildings 59, 61, and 62 which are supplied by electric lines from separate
2858 substations, Dominion is upgrading the entire system at Fort McNair to bring it to their
2859 standards. Distribution lines will be converted to High Reliability Distribution System. The
2860 Installation plans to upgrade street lighting and has proposed four new generators to provide
2861 back-up supply for senior personnel and NCO housing.

2862 The existing electric system on Fort McNair consists of 13,287 ft of primary underground lines
2863 and 7,354 ft of secondary underground lines with a capacity of 13,730 watts and 7,940 phase to
2864 ground voltage. The majority of the lines were placed in 1967. Fort McNair uses approximately
2865 59,000 kWh per day throughout the year, with a peak usage in June of 2,300,000 kWh per month
2866 (Atkins 2012).

2867 **3.10.4 Natural Gas**

2868 **Fort Myer and Henderson Hall**

2869 Washington Gas supplies natural gas to Fort Myer and Henderson Hall and the surrounding
2870 community and owns and maintains the Installation distribution system. The supply is
2871 distributed through pipes ranging in size from ½ to 20 in. typically composed of PVC or
2872 fiberglass material. There are approximately 32,208 linear feet of lines on the Installation
2873 (Atkins 2012).

2874 Fort Myer and Henderson Hall use an average of about 4,900 therms per day throughout the year
2875 with an average peak usage in February of approximately 238,000 therms per month. [A therm is
2876 equal to 100,000 British thermal units (BTU)]. Washington Gas has an adequate system to
2877 supply natural gas to Fort Myer and Henderson Hall, although the entire Installation does not
2878 have access to the supply. No connecting gas lines exist between Fort Myer and Henderson Hall,
2879 so natural gas cannot currently be fed between them. As existing steam lines are being removed,
2880 they are replaced with natural gas lines; gas meters will be needed as new buildings are
2881 connected to the natural gas system (Atkins 2012).

2882 **Fort McNair**

2883 Washington Gas also supplies natural gas to Fort McNair and owns and maintains the
2884 Installation's distribution system which supplies gas to the entire Installation. The supply is
2885 distributed to Fort McNair through pipes ranging in size from 1¼ to 10 in. comprised mostly of
2886 fiberglass, with some PVC and cast iron. There are approximately 15,733 linear feet of lines on
2887 the Installation. Fort McNair uses an average of approximately 2,300 therms per day throughout
2888 the year and the Washington Gas supply is considered adequate for the timeframe of the RPMP.
2889 Peak usage occurs in February averaging 110,000 therms per month (Atkins 2012).

2890 **3.10.5 Central Heating and Cooling**

2891 **Fort Myer and Henderson Hall**

2892 The heating system is powered by natural gas although the plant switches to fuel oil during the
2893 winter months as requested by Washington Gas. Fuel oil is generally used only from January to
2894 March and peaks in February (Atkins 2012).

2895 The existing central steam boiler plant at Fort Myer is located at the intersection of Sheridan
2896 Avenue and Abrams Lane and approximately 17,300 linear feet of heating and cooling lines,
2897 with over 1,100 linear feet of geothermal lines (Atkins 2012). DPW considers the capacity of the
2898 boiler adequate, but there are dozens of leaks at the plant because the steam lines on the
2899 Installation were replaced in the 1980s and the newer fiberglass pipes do not adequately join to
2900 the older existing steam pipes. Fort Myer would like to remove the boiler plant, in order to
2901 eliminate the network of steam lines, in favor of independent natural gas-fired hot water boilers
2902 (Atkins 2012).

2903 **Fort McNair**

2904 There is an existing but unused central boiler plant at Fort McNair located at the intersection of
2905 A Street and 3rd Avenue. The building housing the boiler also has a chiller unit on the roof that
2906 is in service. The boiler is scheduled for decommissioning, but the building would not be
2907 demolished because the chiller would continue operation. Similar to Fort Myer and Henderson
2908 Hall, Fort McNair switches to fuel oil during the winter months by request of Washington Gas;
2909 fuel oil is generally used only from January to March and peaks in January (Atkins 2012).

2910 There are 12,922 linear feet of steam lines on the Installation, separated into 6,461 linear feet of
2911 heat condensate return and 6,461 linear feet of heating steam supply. Currently the steam lines
2912 on the Installation are overloaded (Atkins 2012). Upgrades to the steam lines would be
2913 necessary to implement the RPMP at Fort McNair.

2914 **3.10.6 Solid Waste**

2915 **Fort Myer and Henderson Hall**

2916 Solid waste from Fort Myer and Henderson Hall is collected by a solid waste and recycling
2917 contractor. Segregated wastes (recycled and non-recyclable) are transported to a licensed waste
2918 facility. Containers for recycled waste are provided by the Directorate of Public Works and are

2919 placed within buildings and at outside locations throughout Fort Myer and Henderson Hall.
2920 Custodial staff sort and segregate recyclable materials into designated dumpsters (Atkins 2012).

2921 **Fort McNair**

2922 At Fort McNair solid waste is collected by a contractor and transported to a licensed waste
2923 facility. Fort McNair also participates in the MDW Resource Recovery and Recycling Program,
2924 which includes the recycling of non-hazardous and non-precious materials (USACE 2003).

2925 **3.10.7 Environmental Consequences**

2926 **3.10.7.1 Alternative 1 – No Action**

2927 All public distributions and systems for bringing utilities to JBM-HH are considered adequate to
2928 support the development and changes that would occur as a result of Alternative 1. Although
2929 capacity from distributors is adequate, the internal delivery systems on JBM-HH are, in general,
2930 in need of upgrade. New construction at Fort Myer and several renovation and redevelopment
2931 projects at Fort Myer and Henderson Hall have improved site-specific portions of the current
2932 systems in order to tie-in new and renovated buildings to the distribution systems; however, the
2933 use of newer materials and creation of new junctures in the systems have created areas for leaks
2934 and failures. Additional projects would continue to require connection to and possible
2935 improvement of on-site distribution systems to maintain adequate delivery of potable water and
2936 water to support fire suppression systems, electricity, and heating supply. At Fort McNair the
2937 steam delivery system is currently overloaded and the sanitary sewer system would require
2938 extensive rehabilitation to prevent problems with infiltration and stoppages as the volume
2939 requirements of the Installation sanitary sewer system increase. New construction and necessary
2940 upgrades of utility infrastructure would use energy-efficient materials and components in
2941 compliance with EO 13514.

2942 **3.10.7.2 Alternative 2 – Implementation of RPMP**

2943 All public suppliers and distribution systems that bring utilities to the installations comprising
2944 JBM-HH are adequate to support the long-range development proposed in the RPMP. As
2945 described in Alternative 1, the on-site distribution systems are inadequate, failing, and generally
2946 in need of modernization and upgrading. Project-specific connections to and possible
2947 improvement of on-site distribution systems would be required to maintain adequate delivery of
2948 potable water and water to support fire suppression systems, electricity, and heating supply.

2949 At Fort McNair the steam delivery system is already overloaded and would require expansion to
2950 support the RPMP. Wastewater systems would require project-specific connectivity and
2951 improvements. Required improvements to the sanitary sewer system to support projected growth
2952 would include renovation upgrades and extensive rehabilitation to prevent problems with
2953 infiltration and stoppages as the volume requirements of the Installation increase with increased
2954 development. As future projects are proposed, required renovations to the utility systems would
2955 be incorporated into the design process and implemented during construction.

2956 BMPs for conservation of energy, water, and reduction of solid waste would reduce the energy
2957 requirements for projects on an individual and cumulative basis. BMPs could include the

following: (1) training in water conservation measures for domestic and construction use for staff and contractors; (2) training on eligible materials for recycling municipal solid waste; (3) providing adequate containers for recycling materials; and (4) the mandatory incorporation of recycling requirements for construction demolition debris into all contracts for outside construction, renovation, and demolition contractors. These elements could be carried forward as development continues according to the RPMP.

3.10.8 Mitigation Measures

Projects would be initiated only after the environmental review process has been completed and the required permits are obtained. Construction is required to be designed to meet EO 13423, *Total Operation Goals for Energy and Water Conservation* (Federal Register [FR] 2007), and the U.S. Army policy is to build new construction to the LEED[®] Silver standard. As projects are developed during the implementation of the RPMP, final design plans and adherence to sustainable principles contained in the RPMP would provide opportunities for development of facilities with energy-efficient and sustainable design characteristics. New construction and required upgrades of utility infrastructure would use energy-efficient materials and components in compliance with EO 13514 as well as water saving devices (e.g., low-flow plumbing). Low water use landscaping with hardy native plant species and improving irrigation practices could also be used to reduce water consumption. On a project-by-project basis contractors would be encouraged to seek opportunities to re-use materials and reduce solid wastes.

3.11 HAZARDOUS MATERIALS AND WASTE MANAGEMENT

Military operational activities performed at JBM-HH throughout the history of the installations have required the storage and use of hazardous substances and hazardous materials to successfully accomplish missions. Hazardous materials are identified and regulated under the Toxic Substances Control Act (TSCA); the Occupational Safety and Health Administration (OSHA); and the Emergency Planning and Community Right-to-Know Act (EPCRA). Hazardous materials have been defined in AFI 32-7086, *Hazardous Materials Management*, to include any substance with special characteristics which could harm people, plants, or animals. Hazardous waste is defined by RCRA as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes that could or do pose a substantial hazard to human health or the environment. Waste may be classified as hazardous due to its toxicity, reactivity, ignitability, or corrosiveness. Certain types of waste are “listed” or identified as hazardous in 40 CFR 263. Oversight of hazardous waste issues is provided primarily by EPA, as mandated by the TSCA, RCRA and CERCLA and its extension, the Superfund Amendments and Reauthorization Act. In addition, the Department of Transportation regulates the safe packaging and transporting of hazardous materials, as specified in 49 CFR Parts 171 through 180 and Part 397.

The DDOE Hazardous Waste Division ensures that military installation restoration projects are completed in accordance with District of Columbia environmental laws and regulations. Hazardous Waste Division staff work under an agreement with the DoD to provide technical review and guidance to military services for installation restoration projects at active military sites and formerly used defense sites in the District of Columbia (DDOE 2011b).

2998 Hazardous materials are stored in a variety of locations on the installations, particularly in
2999 maintenance facilities such as carpentry, electric, painting, and plumbing shops, and petroleum
3000 supply points including service stations. JBM-HH actively uses an Installation Restoration
3001 Program (IRP) to identify sites with hazardous wastes that could be affected by activities on the
3002 installations. Any activities in the vicinity of an identified IRP site would be coordinated with
3003 DEM and the Garrison Safety Office.

3004 **3.11.1 Underground Storage Tanks (USTs) and Aboveground Storage Tanks (ASTs)**

3005 **Fort Myer and Henderson Hall**

3006 The Oil and Hazardous Substance Spill Prevention, Control, and Countermeasures (SPCC) Plan
3007 for Fort Myer identified 13 spill control areas. Ten of the 13 spill control areas contain
3008 petroleum products and are considered hazardous materials. Five of the 13 areas contain
3009 hazardous substances. The primary locations for hazardous material/waste storage are associated
3010 with DPW shops (Buildings 306, 307, 309, and 325) and Chemical Storage (Building 448). The
3011 total oil storage on Fort Myer is approximately 184,094 gallons; significant storage is associated
3012 with the boiler plant (Building 447), transportation pool (Building 330), and the Army Air Force
3013 Exchange Service station (Building 453). Several emergency generators with fuel tanks, heating
3014 oil tanks and petroleum, and oil/cooking grease storage drums are also located throughout the
3015 Installation.

3016 Environmental investigative activities have been ongoing at the former site of the Fort Myer PX
3017 gas station for several years. The PX gas station (Building 424) was located on Sheridan Avenue
3018 and was equipped with gasoline-dispensing islands and five 10,000-gallon USTs. Excavation
3019 and disposal of contaminated soil at the former PX gas station site was undertaken during 1997.
3020 During excavations a semi-consolidated black layer was encountered at each excavation at
3021 approximately 2 ft below ground surface. Laboratory analyses of the black layer indicated high
3022 concentrations of naphthalene, 2-methylnaphthalene, and xylene; and lower concentrations of
3023 many other polyaromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs),
3024 including trichloroethene. Further characterization of the black layer using the Toxicity
3025 Characteristics Leaching Procedure (TCLP) indicated that the black layer is not hazardous, but
3026 suggested that it should be considered a special solid waste. Excavation of additional
3027 contaminated soil at the former PX gas station site was conducted during 2001 as part of
3028 construction activities for the new Public Safety Center. Contaminated soil was segregated and
3029 disposed as special solid waste in accordance with VDEQ regulations. Construction of the
3030 Public Safety Center is being completed at this site.

3031 There are no known hazardous material areas within Henderson Hall.

3032 **Fort McNair**

3033 Fort McNair currently has six active USTs. Two USTs are located northwest of the Power Plant
3034 (Building 34); three USTs are located east of Building 43; and one UST is located south of the
3035 National Defense University (USACE 2003). All of the tanks contain either fuel oil or gasoline.
3036 Total oil storage on Fort McNair is approximately 96,660 gallons. At Fort McNair, significant
3037 aboveground oil storage is associated with National Defense University (Building 64). Several

emergency generators with fuel tanks and petroleum, and oil/cooking grease storage drums are also located throughout the Installation. In 2003, soil and groundwater contamination were identified on the non-federal land and surrounding the National Defense University and proposed for acquisition for expansion of the National Defense University. The area surrounding the National Defense University is delineated by 5th Avenue to the east, 4th Avenue to the west, Building 59 to the south, and a parking lot to the north of the National Defense University. Contaminants within the non-federal land area are primarily comprised of lead and PCBs, but mercury, total petroleum hydrocarbons, and semivolatile organic compounds were also identified at low levels (USACE 2003). Groundwater samples contained lead at levels below the drinking water standard of 15 micrograms per liter (µg/L) and total petroleum hydrocarbons at levels above the Washington, D.C. regulatory level of 1 part per million (USACE 2003). Contaminants identified in the western portion of this area included petroleum hydrocarbons, and on the north, lead, arsenic, total petroleum hydrocarbons, and radon were above the acceptable regulatory concentrations. A third site of groundwater and soil contamination was identified as the result of a leaking UST at a former gas station location (Building 43); the site was successfully remediated (USACE 2003). Clean-up and remediation would be required should any development projects be planned for the area surrounding the National Defense University or if the future purchase and development of the adjacent non-federal land occur.

3.11.2 Asbestos and Lead-Based Paint

Fort Myer and Henderson Hall

Asbestos surveys have been conducted at Fort Myer to determine the extent of asbestos contamination and a database has been developed that provides information on sample analyses resulting from the surveys. Many of the buildings at Fort Myer have asbestos-containing materials that may be related to heating and cooling equipment. The asbestos survey database containing sample analyses of these buildings would be consulted on a site-by-site basis to determine if the removal of asbestos-containing material would be required as part of the RPMP (FMMC 2002).

A comprehensive survey for lead-based paint has not been conducted for Fort Myer. Since most of the buildings at Fort Myer were built prior to 1978, it can be assumed that painted surfaces contain lead-based paint (FMMC 2002).

There is no information regarding asbestos or lead-based paint in buildings located at Henderson Hall; however, some buildings in Henderson Hall were built prior to 1978 so it can be assumed that some of the buildings' painted surfaces contain lead-based paint (NFECW 2006).

Fort McNair

Asbestos and lead-based paint are major concerns for historic buildings, specifically in basements (Atkins 2012). No documented installation-wide survey of asbestos at Fort McNair has been conducted; however, asbestos is likely to be found within the Installation and would be primarily associated with heating and cooling ductwork.

3076 Several buildings in the installation were built prior to 1978 and are assumed to contain lead-
3077 based paint. Building 47 (enlisted barracks) has significant lead-based paint problems with
3078 major flaking occurring in the basement (USACE 2003).

3079 **3.11.3 Polychlorinated Biphenyl (PCB) Transformers**

3080 There are no transformers containing PCBs at any of the installations comprising JBM-HH
3081 (Mark Luckers, personal communication 2012).

3082 **3.11.4 Other Hazardous Material**

3083 Integrated Pest Management is designed to reduce the use of pesticides and is in accordance with
3084 the U.S. Army's Pollution Prevention Program. The application of all pesticides is performed in
3085 accordance with both the U.S. Army's Integrated Pest Management techniques and the
3086 Integrated Pesticide Management Program. A contracted pest control company performs interior
3087 pest control.

3088 Radon monitoring at Fort Myer and Fort McNair found radon levels in buildings to be within
3089 EPA acceptable levels; however, the same radon monitoring found levels of radon exceeding
3090 EPA acceptable levels (4.0 pico-Curies per liter [pCi/L]) in the parking area north of the National
3091 Defense University at Fort McNair (USACE 2003).

3092 Munitions are stored in four partially in-ground structures near the intersection of Marshall Drive
3093 and McNair Road on Fort Myer, and explosive kits used in the training of military working dogs
3094 are stored in an explosives storage bunker. Restrictions on uses within a delineated distance
3095 (Explosive Safety Quantity Distance) around these facilities create a constraint to development
3096 and are not considered for any projects under any alternatives of the RPMP (Atkins 2012).

3097 **3.11.5 Environmental Consequences of Hazardous Materials**

3098 The presence of hazardous materials as described in this section results in the delineation of
3099 constraints to development as presented on Figure 22 for Fort Myer and Henderson Hall and
3100 Figure 23 for Fort McNair.

3101 **3.11.5.1 Alternative 1 – No Action**

3102 USTs, lead-based paint, and asbestos are the primary hazardous materials found on the
3103 installations. Site preparation for the redevelopment of older buildings within the installations
3104 comprising JBM-HH under Alternative 1 would require surveys for the presence of PCBs,
3105 asbestos, and/or lead paint. When identified, asbestos and lead-based paint would require
3106 implementation of abatement tasks in order to proceed with redevelopment activities. As a
3107 result, Alternative 1 would have a beneficial effect by removing asbestos and/or lead paint.

3108 New construction under Alternative 1 generally would not generate hazardous materials and
3109 would not introduce new sources of hazardous materials with the exception of storage and use of
3110 products necessary for construction activities. JBM-HH compliance with RCRA Subtitle I
3111 through the VDEQ Petroleum Program would minimize impacts from storage of petroleum
3112 products on the installations including those resulting from project construction.

3113 Solid waste materials from demolition and construction waste materials generated by several
3114 projects under Alternative 1 would require appropriate disposal and would initiate re-use of
3115 construction and demolition materials as clean fill material where possible. Pesticide use would
3116 continue in landscaped areas at all of the installations comprising JBM-HH as needed and would
3117 be regulated and stored according to the Integrated Pesticide Management Program.

3118 **3.11.5.2 Alternative 2 – Implementation of the RPMP**

3119 The proposed RPMP land use plan would consolidate similar land use functions, particularly
3120 Industrial land uses for Maintenance, DEM, and other organizations and would ultimately allow
3121 more efficient program management and tracking of storage and use of hazardous materials on
3122 the installations comprising JBM-HH. In general, the effects resulting from the implementation
3123 of Alternative 2 would be similar to those in Alternative 1; however, they would continue to
3124 occur throughout the time frame of the RPMP.

3125 As stated for Alternative 1, new construction would not generate hazardous materials and would
3126 not introduce new sources of hazardous materials with the exception of storage and use of
3127 products necessary for construction activities. Compliance with RCRA Subtitle I through the
3128 VDEQ Petroleum Program would minimize impacts from storage of petroleum products on the
3129 installations including those resulting from project construction.

Figure 22. Fort Myer and Henderson Hall Operational Constraints Map

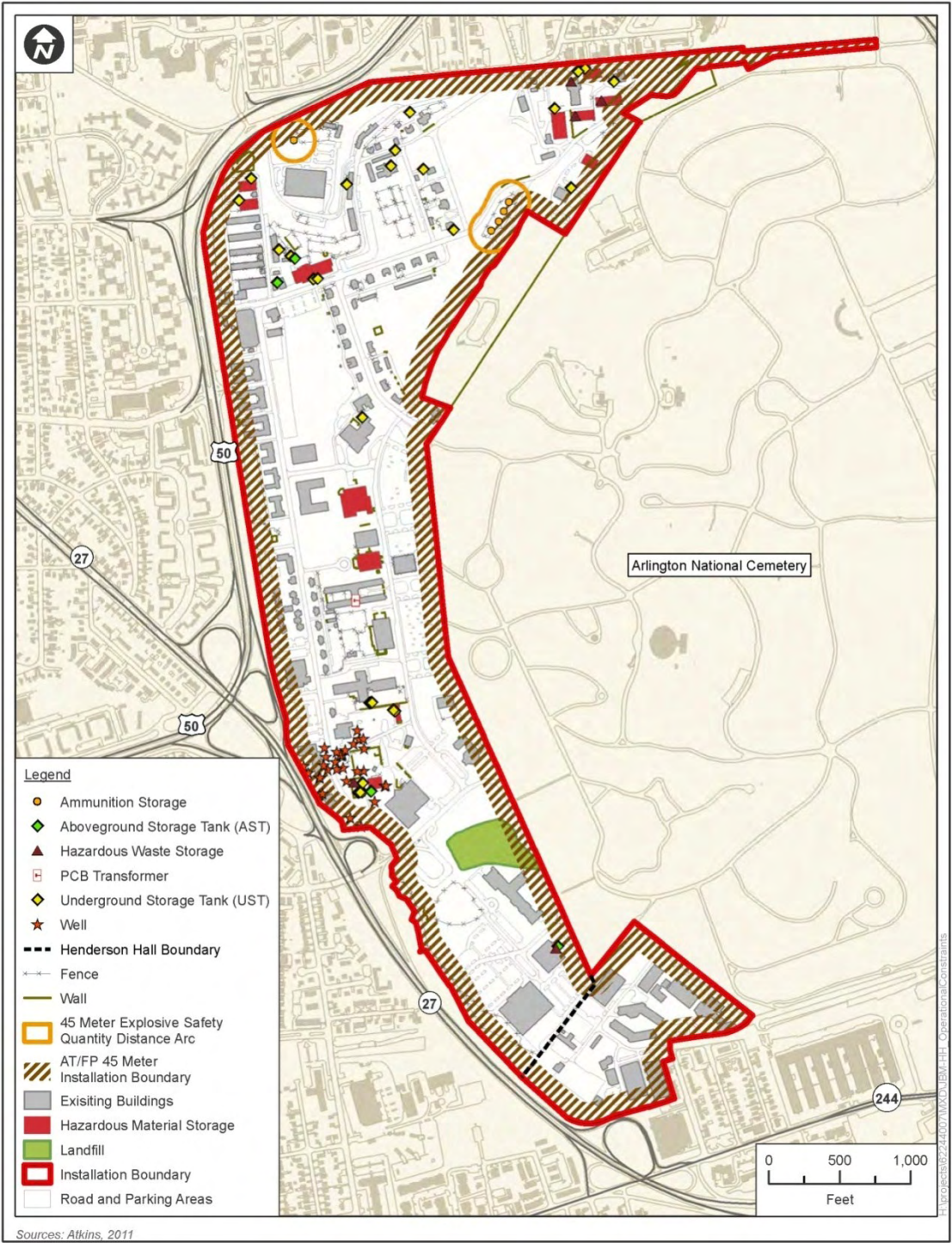
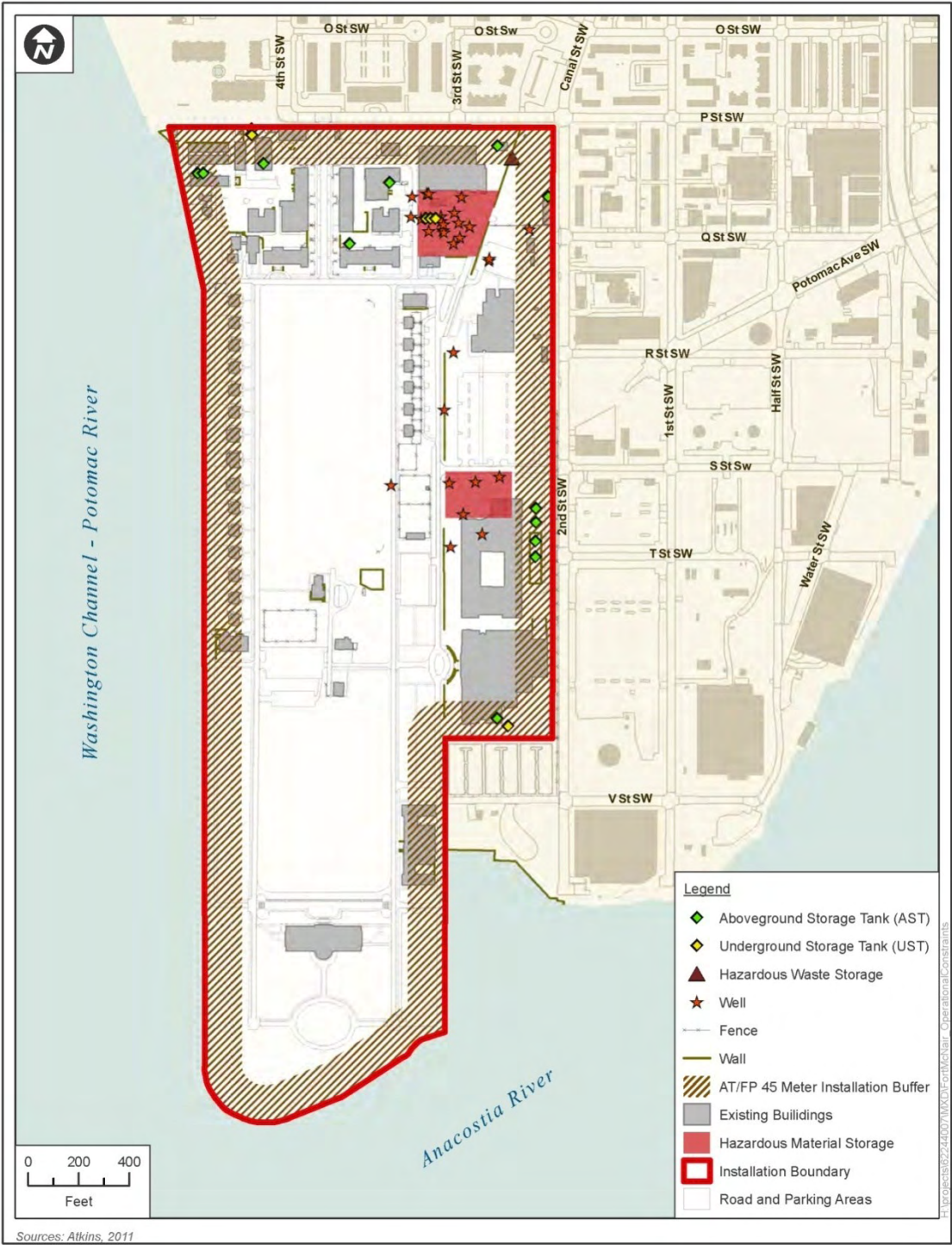


Figure 23. Fort McNair Operational Constraints Map



Alternative 2 would result in continued, long-term beneficial effects through the identification, removal, and remediation of identified hazardous substances including contaminants in soil and groundwater at Fort McNair and asbestos and lead-based paint throughout the installations comprising JBM-HH. Each future new construction, demolition, or redevelopment project that occurs as part of the implementation of the RPMP would generate solid waste from demolition, construction materials, land clearing, etc.; however, as stated in Alternative 1, reuse of construction and demolition materials as clean fill material would be implemented where possible and remaining solid waste would be appropriately disposed of.

Storage and sales of household cleaners, solvents, pesticides, etc. would continue at the PX and MCX at Fort Myer and Henderson Hall and use of small amounts of similar products would occur throughout the installations. Pesticide use would continue in landscaped areas throughout the installations comprising JBM-HH as needed and would be regulated and stored according to the Integrated Pesticide Management Program.

As a result, impacts related to solid waste and hazardous materials would be expected to be minimal and continued beneficial effects would occur as hazardous materials are remediated.

3.11.6 Mitigation Measures

Projects would be implemented in compliance with applicable laws and regulations. Projects would be initiated only after the environmental review has been completed and the required permits are obtained. Prior to project initiation the VDEQ database for geographical information on voluntary remediation program sites, RCRA, and petroleum release sites should be checked for new or updated information. Hazardous waste management programs, policies and regulations, and standard operating procedures would all continue to be implemented. Programs in place at JBM-HH that manage, monitor, and remediate hazardous materials such as the asbestos, lead paint, PCBs, and pesticides would continue to minimize risk from existing sources of hazardous materials. Practices to reduce the amount of generated solid waste would be implemented. Confirmation samples collected beneath USTs and ASTs would likely be required to demonstrate no release of hazardous materials to the surrounding soil has occurred. Any soil that is suspected of being contaminated or wastes that are generated would be tested and disposed of in accordance with applicable federal, state, and local laws and regulations.

3.12 AIR QUALITY

The Clean Air Act (CAA) was passed in 1970 to protect the public's health and welfare. Congress amended the Act in 1990 to establish requirements for areas not meeting the National Ambient Air Quality Standards (NAAQS). The amendments to the Clean Air Act established a process for evaluating air quality in each region and identifying and classifying nonattainment areas according to the severity of its air pollution problem. Under the CAA and its amendments of 1977 and 1990, EPA has established primary and secondary NAAQS as presented on Table 10 for the following criteria pollutants: coarse particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, and lead. Short-term (1-hour, 8-hour, and 24-hour) levels have been established for pollutants contributing to acute health effects, and long-term (annual averages) levels have been established for pollutants contributing to chronic health effects; secondary standards were established to protect public

3175 health and welfare. Units of measure for the standards are parts per million (ppm) by volume
 3176 and micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$). Nonattainment areas are designated as Air
 3177 Quality Control Regions (ACQR), or subdivisions thereof, that exceed the NAAQS for one or
 3178 more criteria pollutant standards.

3179 Fort Myer and Henderson Hall in Arlington County, Virginia and Fort McNair in Washington,
 3180 D.C. are both within the National Capital Interstate Air Quality Control Region, which
 3181 encompasses all of the District of Columbia and the adjoining Maryland and Virginia counties.
 3182 This AQCR (Washington, D.C.-MD-VA Region) is currently designated by EPA as moderate
 3183 nonattainment for the (2008) 8-hour ozone (O_3) standard (75 parts per billion [ppb]) and
 3184 nonattainment for the (1997) annual $\text{PM}_{2.5}$ standard ($15.0 \mu\text{g}/\text{m}^3$). The Washington D.C.-MD-
 3185 VA Region is in attainment for all other NAAQS.

3186 **Table 10. National Ambient Air Quality Standards**

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm (10 mg/m ³)	8-hour	None	
	35 ppm (40 mg/m ³)	1-hour		
Lead	0.15 µg/m ³	Rolling 3-month average	Same as Primary	
Nitrogen Dioxide	0.053 ppm	Annual (Arithmetic Mean)	Same as Primary	
	0.100 ppm	1-hour	None	
Particulate Matter (PM ₁₀)	150 µg/m ³	24-hour	Same as Primary	
Particulate Matter (PM _{2.5})	15.0 µg/m ³	Annual (Arithmetic Mean)	Same as Primary	
	35 µg/m ³	24-hour	Same as Primary	
Ozone	0.075 ppm	8-hour (2008 standard)	Same as Primary	
	0.08 ppm	8-hour (1997 standard)	Same as Primary	
	0.12 ppm	1-hour	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm	3-hour
	0.14 ppm	24-hour		
	0.075 ppm	1-hour	None	
Note: As of 15 June 2005, the Washington, D.C.-MD-VA Region is no longer subject to the 1-hour ozone NAAQS, since the 1-hour ozone NAAQS was revoked by EPA. In September 2011, EPA proposed a determination that the Washington D.C.-MD-VA Region had attained the 1997 8-hour ozone standard by the attainment date of 15 June 2010.				

3187
 3188 The Clean Air Act Amendments of 1990 mandated that state and other jurisdictional agencies
 3189 responsible for nonattainment areas adopt State Implementation Plans (SIPs) that implement
 3190 measures to eliminate or reduce the severity and number of violations of the NAAQS, and
 3191 ultimately enable attainment of the NAAQS. The Washington, D.C.-MD-VA Region SIP and its
 3192 various revisions are submitted to EPA for approval by the Metropolitan Washington Air Quality
 3193 Committee (MWAQC), in cooperation with the District of Columbia Department of
 3194 Environment, Maryland Department of the Environment, and VDEQ (Metropolitan Washington

3195 Council of Governments [MWCOC] 2011). The SIP addressing ozone nonattainment was
3196 submitted to EPA in 2007 and the SIP addressing PM_{2.5} nonattainment was submitted to EPA in
3197 2008. Both SIPs were approved by EPA and are currently in effect. Although the Region
3198 remains in nonattainment for the 2008 8-hour ozone standard (75 ppb), 2002-2007 monitoring
3199 data indicate that the 1997 annual PM_{2.5} standard has been met. As a result, MWAQC is
3200 currently preparing a Redesignation Request and Maintenance Plan for submittal to EPA that
3201 will support redesignation of the Region to Maintenance status for the annual PM_{2.5} NAAQS.
3202 Notwithstanding, SIP provisions related to attaining both standards will remain in effect for the
3203 foreseeable future.

3204 Two separate sets of regulations, one for transportation projects – *Transportation Conformity*
3205 (40 CFR Part 93 Subpart A) – and one for non-transportation projects – *General Conformity*
3206 (40 CFR Part 93 Subpart B) – have been developed by EPA to ensure that federal actions do not
3207 interfere with progress towards attainment under SIPs.

3208 The General Conformity Rule specifically lists threshold emission levels by pollutant (40 CFR
3209 93 Subpart B §93.153(b)(1)) to determine the applicability of General Conformity to a federal
3210 action¹. For the Washington, D.C.-MD-VA Region, an area in moderate nonattainment for the
3211 8-hour ozone NAAQS within the ozone transport region, the applicable *de minimis* level is
3212 100 tons per year for nitrogen oxide and 50 tons per year for VOCs. For the Washington, D.C.-
3213 MD-VA Region, an area in nonattainment for the fine particulates (PM_{2.5}) NAAQS, the
3214 applicable *de minimis* level is 100 tons per year for direct emissions of fine particulates, and
3215 100 tons per year for the PM_{2.5} precursor pollutants nitrogen oxide, and sulfur dioxide. For
3216 proposed federal actions, if total annual direct and indirect emissions of criteria pollutants do not
3217 exceed the *de minimis* threshold levels, the action is not subject to General Conformity and no
3218 further analysis is necessary.

3219 **3.12.1 Mobile Sources**

3220 Mobile sources of emissions are primarily the result of vehicular traffic and pollutants including
3221 carbon monoxide, nitrogen oxide, and VOCs.

3222 **3.12.2 Stationary Sources and Permitting**

3223 Within the Washington, D.C.-MD-VA Region, the District of Columbia Department of
3224 Environment, Maryland Department of Environment, and VDEQ are the agencies with the
3225 authority to administer programs for permitting the construction and operation of new or
3226 modified stationary sources of air emissions.

¹ Federal action means any activity engaged in by a department, agency, or instrumentality of the federal government, or any activity that a department, agency, or instrumentality of the federal government supports in any way, provides a financial assistance for, licenses, permits, or approves, other than activities related to transportation plans, programs, and projects developed, funded, or approved under title 23 United States Code (U.S.C.) or the Federal Transit Act (49 U.S.C. 1601 et seq.). Where the federal action is a permit, license, or other approval for some aspect of a non-federal undertaking, the relevant activity is the part, portion, or phase of the non-Federal undertaking that requires the federal permit, license, or approval.

3.12.2.1 Construction Permits

Small, new stationary sources considered insignificant from the standpoint of the agencies' air emission inventories may be installed and operated without prior permission from the agency with jurisdiction. Larger sources, considered significant by the agency, are required to have preconstruction permits before installation and operation begins. Such minor New Source Review (NSR) permitting is within the purview of the state agency. Major stationary sources or major modifications to existing major stationary sources require permitting under the federal NSR program. NSR includes the Prevention of Significant Deterioration (PSD) program and Nonattainment New Source Review (NNSR).

Projects with potential emissions exceeding applicability thresholds for nonattainment pollutants and their precursors may trigger NNSR. The purpose of NNSR is to ensure that ambient air quality is improved in nonattainment areas. The NNSR process includes obtaining emission offsets at a ratio of greater than 1 to 1 of all new emissions of applicable pollutants created during the project period. Offsets can be obtained internally (by reducing other emission sources at one of the installations) or externally, but these must be from sources in the same nonattainment area or in the case of ozone precursors, from another nonattainment area if (i) the other area has an equal or higher nonattainment classification than the area in which the source is located, and (ii) emissions from such other area contribute to a violation of the ambient air quality standard in the nonattainment area in which the source is located. When successful, the NNSR process takes 18 to 24 months. However, available sources of emission offsets are very limited within the applicable nonattainment area. Nonattainment NSR permits are issued by all of the environmental agencies in the region and are required for new major sources or existing major sources making a major modification in a nonattainment area. NNSR permits are legal documents that specify what construction is allowed, what emission limits must be met, and how the source must operate. To assure compliance, permits also require monitoring, record keeping, and reporting. Major New or Modified Source Construction Permits in Nonattainment Areas are required for any major new sources or major modifications to existing sources in an area designated as nonattainment. Requirements of this type of permit may include: lowest achievable emission rate (LAER) control technology, emissions offsets, and a public involvement process.

A PSD permit protects air quality in attainment areas, and regulations impose limits on the amount of pollutant that major sources may emit. Typical requirements include: best available control technology (BACT) review for criteria pollutants, extensive predictive modeling of emissions from proposed and existing sources, and extensive public involvement.

Minor Source Review permits are for sources whose emissions are less than major threshold values. Such permits are required to construct minor new sources, modifications of existing sources, and major sources not subject to NNSR or PSD permit requirements.

3.12.2.2 Operation Permits

Title V Federal Operating Permits are required for major sources of criteria pollutants as defined in 40 CFR Part 70 and are required if the annual potential to emit exceeds thresholds for criteria and hazardous pollutants. In the Washington, D.C.-MD-VA Region, the Title V major source

3268 thresholds for pollutant emissions are 100 tons per year for criteria pollutants, 25 tons per year
3269 for NOx and VOC, and 10 tons per year of any hazardous air pollutant, or 25 tons per year of
3270 combined hazardous air pollutants and are equivalent to the NNSR thresholds required for major
3271 new sources or major modifications to existing sources.

3272 Sources not subject to the Title V-Part 70 Operating Permit program may be required to obtain a
3273 state operating permit in Washington, D.C., Virginia, or Maryland.

3274 In addition to the permitting requirements to construct and operate new or modified emission
3275 sources, New Source Performance Standards and the National Emissions Standards for
3276 Hazardous Air Pollutants set emission control standards for categories of new stationary
3277 emissions sources of any of the 6 criteria air pollutants or 187 hazardous air pollutants.

3278 **3.12.3 Environmental Consequences**

3279 **3.12.3.1 Alternative 1**

3280 Construction, demolition, soil disturbance, and vehicle emissions would result in temporary
3281 localized changes to air quality as a result of fugitive dust and vehicle emissions. Criteria and
3282 hazardous air pollutant emissions from delivery vehicles and operation of construction vehicles
3283 and equipment such as dump trucks, bulldozers, excavators, air compressors, and generators
3284 would be temporary and localized. Long-term air quality impacts, if any, would depend on the
3285 methods employed for heating and the use of emergency generators during power outage or other
3286 critical events. Projects would be undertaken in compliance with state and federal standards for
3287 air quality. Applicable NEPA considerations would be made and the resulting documentation (if
3288 any) would be kept on file. Mitigation measures would reduce emissions and fugitive dust
3289 resulting from Alternative 1. Operation of vehicles that are provided with air pollution controls,
3290 and the use of low emission construction techniques would offset total emissions.

3291 **3.12.3.2 Alternative 2**

3292 Impacts resulting from Alternative 2, would be similar to those described for Alternative 1. The
3293 degrees and extent of construction and demolition activities could also be greater at times.
3294 Fugitive dust emissions would result from site preparation activities, demolition, renovation, and
3295 new construction activities, as well as from the use of construction equipment, site preparation
3296 activities, and delivery of new materials and equipment. Criteria and hazardous air pollutant
3297 emissions from delivery vehicles and operation of construction vehicles and equipment such as
3298 dump trucks, bulldozers, excavators, air compressors, and generators would be temporary and
3299 localized. Long-term air quality impacts, if any, would depend on the methods employed for
3300 heating and the use of emergency generators during power outage or other critical events.

3301 Construction activities would be compliant with state and federal regulations and permitting
3302 requirements as well as the employment of mitigation measures as outlined below would reduce
3303 emissions and control fugitive dust. Applicable NEPA considerations would be made and the
3304 resulting documentation (if any) would be kept on file.

3305 Improvements in traffic circulation and a design element that creates pedestrian-friendly access
3306 and multi-modal transportation opportunities for the installations comprising JBM-HH would

3307 reduce congestion, and improve local air quality within the installations by reducing vehicle
3308 emissions.

3309 **3.12.4 Mitigation Measures**

3310 Coordination with VDEQ prior to project initiation would determine the applicability of permits
3311 required. Projects would be initiated only after the environmental review has been completed
3312 and the appropriate state permits are acquired. Proper maintenance of vehicles' exhaust, use of
3313 low-sulphur fuels, anti-idling devices on vehicles and equipment, low emission construction
3314 techniques, and avoidance of construction activities on days with poor air quality as designated
3315 by MWCOG would offset total emissions.

3316 During construction, fugitive dust would be reduced through the employment of control methods
3317 such as the use of water or chemicals to reduce dust; installation of hoods, fans, and fabric filters
3318 to enclose and vent dusty materials; covering open equipment used for conveying materials; and
3319 prompt removal of dried sediments, spilled or tracked dirt, and other materials from paved
3320 streets.

3321 Open burning or the use of special incineration devices used in the disposal of demolition
3322 material would meet the requirements of open burning regulations and a permit would be
3323 obtained, if required.

3324 **3.13 NOISE**

3325 Sound varies by intensity and frequency and the human ear responds differently to different
3326 frequencies. Sound pressure level is described in decibels (dB) and is used to quantify sound
3327 intensity. Hertz is used to quantify sound frequency. "A-weighted" decibels (dBA) approximate
3328 the perception of sound by humans and describe steady noise levels, though few noises are
3329 constant. A change of a few dBA in noise level is barely perceptible to most people; however, a
3330 10-dBA change is considered a substantial change, and these thresholds are used to estimate a
3331 person's likelihood of perceiving a change in noise levels.

3332 The major sources of noise at JBM-HH include aircraft overflights arriving and departing Ronald
3333 Reagan Washington National Airport, and traffic on the installations comprising JBM-HH and
3334 on adjacent streets and highways. Impulse noise is also generated by occasional ceremonial
3335 recorded bugle calls, and firings of rifle and artillery (cannon blasts and recorded bugle calls
3336 during ceremonies). In general, noise generated within the installations comprising JBM-HH is
3337 short term in nature.

3338 Construction noise can result in relatively high noise levels during day-time periods and within
3339 several hundred feet of the construction activity. The zone of relatively high construction noise
3340 typically extends to distances of 400 to 800 ft from the operating equipment. Locations more
3341 than 1,000 ft from construction sites experience little disturbance from noise. Table 11 presents
3342 the noise levels (dBA) estimated for common construction equipment (Labor Workers Health
3343 and Safety of North America [LHSFNA] 2011).

3344 **Table 11. Noise Levels Generated by Common Construction Equipment**

Construction Equipment	Sound Level (dBA) at the Operator
Front End Loader	85-91
Bulldozer	89-103
Backhoe	79-89
Scraper	84-102
Grader	<85
Truck	89-103
Paver	100-102
Concrete Mixer	<85
Air Compressor	104
OSHA (at workers ear)	90
Day Time Community (at property line)	65
Source: LFSHNA 2011.	

3.13.1 Environmental Consequences

3.13.1.1 Alternative 1 – No Action

Short-term increases in noise levels would occur as a result of site preparations, demolition, and construction activities under Alternative 1. Individual pieces of construction equipment typically generate noise levels of 80 to 90 dBA at a distance of 50 ft, and simultaneous operation of multiple pieces of equipment increases noise levels during work hours at development sites. In general, the zone of relatively high noise typically extends to distances of 400 to 800 ft from the construction site. Locations more than 1,000 ft from construction sites seldom experience noteworthy levels of construction noise.

Noise levels resulting from construction projects on JBM-HH would not affect noise-sensitive receptors in adjacent residential communities and would not exceed the noise abatement criterion (65 dBA) for residential land uses. Minor increases in noise would not contribute to a violation of any federal, state, or local regulations or introduce areas of incompatible land use due to noise.

3.13.1.2 Alternative 2 – Implementation of the RPMP

Under Alternative 2, similar impacts to those described under Alternative 1 would occur for future projects that included construction, demolition, and renovation activities. Although construction noise may be quite loud at the source and is exacerbated by multiple pieces of equipment operating simultaneously, the impacts of construction noise are temporary and would primarily occur within daylight hours.

Noise levels resulting from construction projects on JBM-HH would not affect noise-sensitive receptors in adjacent residential communities and would not exceed the noise abatement criterion

(65 dBA) for residential land uses. Minor increases in noise would not contribute to a violation of any federal, state, or local regulations or introduce areas of incompatible land use due to noise.

3.13.2 Mitigation Measures

BMPs that should be applied to construction activity include: (1) limiting construction to normal weekday business hours in areas adjacent to noise-sensitive land uses such as residential, recreational, and off-Installation areas; (2) properly maintaining construction equipment mufflers; and (3) restricting access to areas immediately adjacent to construction activity where loud equipment is being used.

3.14 CUMULATIVE IMPACTS

CEQ regulations and 32 CFR Part 989 stipulate that the cumulative effects analysis should consider the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7). The first step in assessing cumulative effects involves identifying and defining the scope of other actions and their interrelationship with the Proposed Action or alternatives (CEQ 1997). The scope must consider other projects that coincide with the location and timetable of the Proposed Action and other actions. Cumulative effects analyses evaluate the interactions of multiple actions.

Specific projects being planned or under development in the vicinity of Fort Myer and Henderson Hall are presented in Table 12 and Figure 24. Projects in the vicinity of Fort McNair are presented in Table 13 and Figure 25. In addition to the projects identified on Figures 24 and 25, local and regional planning documents provide planning and concept level plans for a variety of re-development and re-vitalization projects. As previously noted in Section 3.7, *Land Use*, Arlington County is considering a revitalization plan for the Columbia Turnpike (the Columbia Pike Initiative) and a transit initiative for both bus rapid transit and a streetcar line for the Columbia Pike corridor as well as sector planning for Fort Myer Heights North, Radnor Heights, and Pentagon City, with a focus on mixed use development, including retail, office space, commercial space, and housing. Development would be concentrated along the Rosslyn-Ballston and Jefferson Davis Metrorail Corridors.

In the past, most of the land within the installations comprising JBM-HH has been previously developed and development has occurred in concert with development in Arlington County and Washington, D.C. The focus of the RPMP is redevelopment, and renovation of existing facilities in order to consolidate appropriate land uses and provide some areas for future development; however, additional new development would be limited. The TMP incorporates measures to reduce single-occupancy vehicle use and provide incentives for using alternative transportation methods. Traffic studies that may be required would take into consideration the impacts of project-related travel on local offsite roads as well as roads within the Installation. Coordination and planning among the proponents of JBM-HH projects, the expansion of Arlington National Cemetery, and the Columbia Pike Initiative would also consider cumulative impacts of these projects. As a result, no significant cumulative consequences would be expected to effect to land use or transportation in conjunction with RPMP projects. No negative cumulative socioeconomic or environmental justice effects are anticipated as a result of the implementation

3408 of Alternative 2 or other reasonably foreseeable projects. No additional cumulative safety or
3409 noise impacts are anticipated other than those described for physical, biological, or cultural
3410 resources. Construction activity at the installations comprising JBM-HH and in the region would
3411 have a temporary effect on air quality as a result of construction emissions; however, cumulative
3412 consequences would not be expected to result in emission levels that could affect regional air
3413 quality.

3414
3415

Table 12. Current and Future Projects in the Vicinity of Fort Myer and Henderson Hall

Location Number¹	Name	Description
1	Residence Inn (Courthouse Plaza Hotel) 2300 Clarendon Boulevard	This mixed-use project consists of 9,455 ft ² Gross Floor Area (GFA) of retail space and 176 hotel rooms in a 10-story building.
2	Garfield Park at Clarendon Village 2900 10 th Street NTBD	This mixed-use project consists of 20,757 ft ² GFA of retail space, 4,085 ft ² GFA of office space, and 149 residential units in a 5-story building.
3	Lee Gardens Shopping Center 2201 North Pershing Drive	This shopping center consists of 33,495 ft ² GFA of retail space and 188 residential units in a 5-story building.
4	Arlington VOA Assisted Living Residence 2000 S. 5 th Street S	This assisted living residence consists of 52 residential units in a 2-story building.
5	Two Metropolitan Park 1221 S Fern Street	This mixed-use project consists of 8,119 ft ² GFA of retail space and 300 residential units in an 18-story building.
6	Zoso Condominium 1021 N Fillmore Street	This mixed-use project consists of 6,846 ft ² GFA of retail space, 16,573 ft ² GFA of office space, and 114 residential units in a 5-story building.
7	Vista on Court House 1190 N Courthouse Road	This project consists of 252 residential units in an 11-story building.
8	The Palatine 1201 N Troy Street	This residential project consists of 327 units in an 11-story building.
9	Parc Rosslyn 1531 N Pierce Street	This residential project consists of 238 units in a 15-story building.
10	Turnberry Tower 1850 Fort Myer Drive	This mixed-use project consists of 4,400 ft ² GFA of retail space and 337 residential units in a 27-story building.
11	Arlington National Cemetery Expansion	This project would expand the capacity of ANC and include support facilities (e.g., restrooms, storage, sanitary sewer, and stormwater managment improvements.)

3416 ¹ Location number is keyed to locations shown on Figure 24.

3417

Figure 24. Future Projects in the Vicinity of Fort Myer and Henderson Hall



Table 13. Current and Future Projects in the Vicinity of Fort McNair

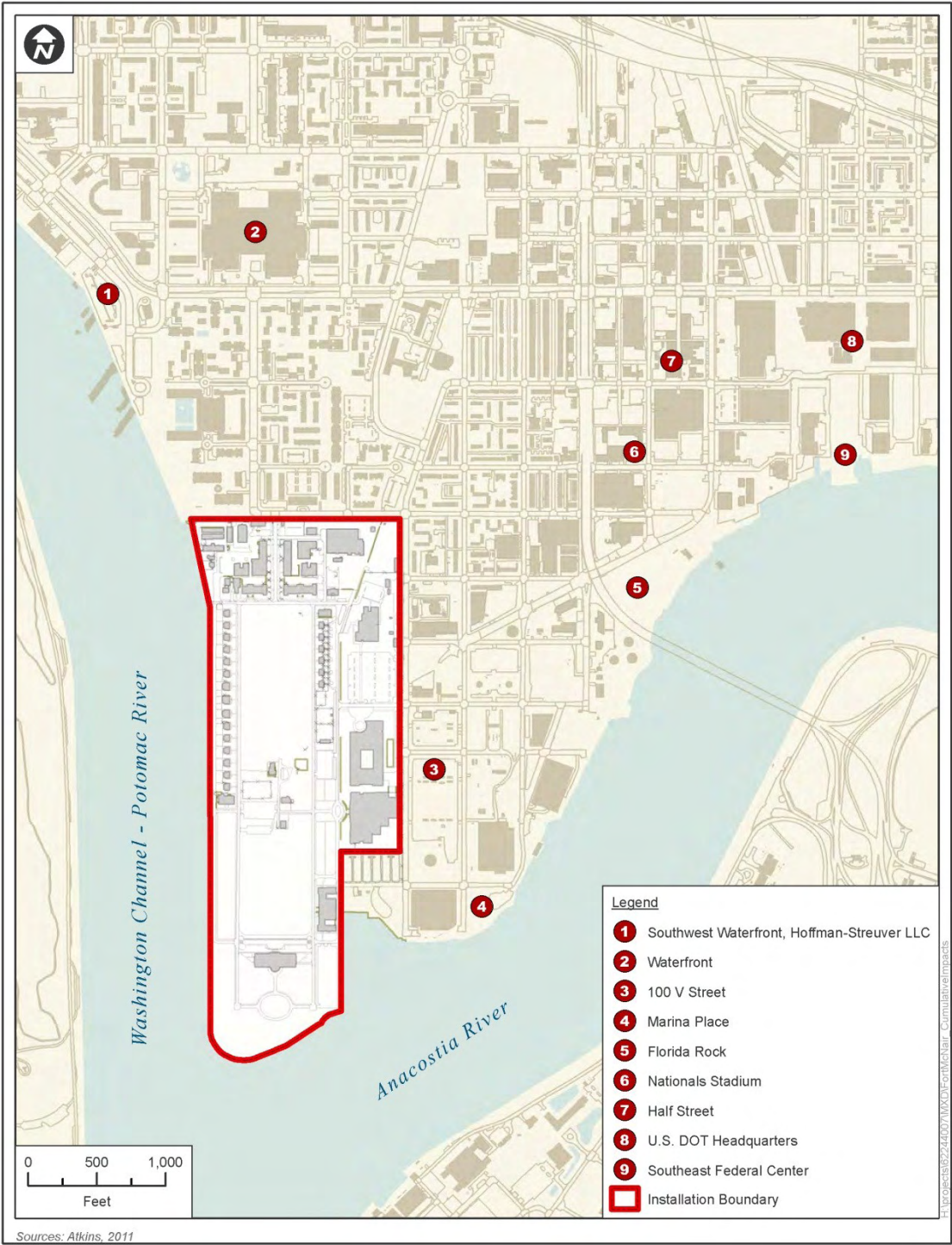
Location Number¹	Name	Description
1	Southwest Waterfront Redevelopment (Hoffman-Streuver LLC)	The \$1.1 billion Southwest Waterfront Redevelopment includes 767 housing units (231 affordable), 400,000 ft ² office space, 280,000 ft ² of retail, 476,000 ft ² hotel space, and 150,000 ft ² of cultural space including the National Maritime Heritage Museum and new Fish Market. \$200 million in public financing provides funds for parks, piers, infrastructure, and bike paths. This project is expected to bring 2,880 new jobs and 100 new businesses.
2	Waterfront Mixed Use	Waterfront includes 1.1 million ft ² of office space, 800,000 ft ² of residential, 400,000 ft ² of residential or office, and over of 110,000 ft ² of retail space on the former site of the Waterside Mall. South Street SW will be re-opened. First phase is currently under construction.
3	100 V St Washington DC, SW	Akridge, a local real estate company, purchased a 9-acre site next to Fort McNair consisting of two parking lots from the Potomac Electric Power Company. This site has potential for a 2.7 million ft ² development and is available on a build to suit opportunity.
4	Marine Place	This planned residential and retail property would include 4,800 ft ² of retail space and 89 residential units located at 95 V Street in Buzzard Point.
5	Florida Rock	This proposed mixed-use retail, office, and hotel project is located south of Nationals Ball Park and adjacent to the Frederick Douglass Memorial Bridge. This project is planned for 85,000 ft ² of retail, 470,000 ft ² of office space, and 1,027,000 ft ² of mixed-use space.
6	Nationals Stadium	The Washington Nationals 41,000-seat stadium opened in the spring of 2008, acting as a catalyst for development in the area, and attracting people from the entire region to the southeast waterfront.

Location Number¹	Name	Description
7	Half Street	Monument Realty, is developing a 1.9 million ft ² mixed-use neighborhood called Half Street next to the Washington Nationals new stadium. The first phase includes 250,000 ft ² of office space, 50,000 ft ² of retail space, 300 residential units, and a 200-room boutique hotel.
8	U.S. DOT Headquarters	This new 11-acre, 1.35 million-ft ² headquarters for the U.S. Department of Transportation houses 7,000 workers and is directly adjacent to the Southeast Federal Center.
9	Southeast Federal Center	This 42-acre mixed-use project broke ground in late 2007 and will consist of 1.8 million ft ² of office space, 2,800 residential units, 160,000 to 350,000 ft ² of retail space, and a 5.87-acre waterfront park, all to be phased in over the next 10 to 20 years.

3421 ¹ Location number is keyed to Figure 25.

3422

Figure 25. Future Projects in the Vicinity of Fort McNair



3.15 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

CEQ's NEPA regulations require environmental analyses to identify "...any irreversible and irretrievable commitments of resources which would be involved in the Proposed Action should it be implemented" (40 CFR Section 1502.16). Primary irreversible effects result from permanent use of a nonrenewable resource (e.g., minerals or energy). Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., disturbance of a cultural site) or consumption of renewable resources that are not permanently lost (e.g., old growth forests). Secondary impacts could result from environmental accidents, such as accidents or fires. Natural resources include minerals, energy, land, water, forestry, and biota. Nonrenewable resources are those resources that cannot be replenished by natural means, including oil, natural gas, and iron ore. Renewable natural resources are those resources that can be replenished by natural means, including water, lumber, and soil.

Most impacts resulting from the implementation of future projects at JBM-HH are short-term and temporary, or longer lasting but negligible in the context of the existing degree of development and urban surroundings of the installations. Military activities necessarily involve consumption of nonrenewable resources, such as gasoline for vehicles and fuel for helicopters. This would occur under both alternatives. No irreversible or irretrievable effects would be expected for cultural resources or other natural resources, including land and water.

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APPENDIX A:
DETERMINATION OF CONSISTENCY WITH VIRGINIA'S COASTAL RESOURCES
MANAGEMENT PROGRAM

Determination of Consistency with Virginia's Coastal Resources Management Program

Pursuant to Section 307 of the Coastal Zone Management Act of 1972, as amended, this is a Federal Consistency Determination for the implementation of a Real Property Master Plan (RPMP) for Fort Myer, Henderson Hall and Fort McNair (JBM-HH). Fort Myer, Henderson Hall and Fort McNair were designated a Joint Base as a result of Base Realignment and Closure Recommendations in 2005 to increase efficiency. Fort Myer and Henderson Hall are located in Arlington, Virginia and Fort McNair is located in Washington, D.C (Figure 1). Because Fort Myer and Henderson Hall are located within the Commonwealth of Virginia, the Army is required to determine the consistency of its activities affecting Virginia's coastal resources or coastal uses with the Virginia Coastal Resources Management Program (CRMP) for those installations.

This document represents an analysis of the RPMP in light of established Virginia CRMP Enforceable Policies and Programs. Furthermore, submission of this consistency determination reflects the commitment of the Army to comply with those Enforceable Policies and Programs. The proposed action would be implemented in a manner consistent with the Virginia CRMP. The Army has determined that the implementation of the RPMP for Fort Myer and Henderson Hall as installations within JBM-HH would have a minor impact on the land and water uses or natural resources of the Commonwealth of Virginia's coastal zone.

1 Description of the Proposed Action

JBM-HH has proposed the implementation of a RPMP that provides JBM-HH with a planning framework, tools, and direction to enable: the utilization and development of the land within Installation's boundaries in a manner that allows the continued expansion of JBM-HH to maintain an organized, functional, and sustainable installation that balances regional and local natural and cultural resources, with Installation operations and is consistent with regional development and local comprehensive planning. An assessment of functional and spatial relationships of land uses determined the best use of developable areas within the Installation and created a planning framework to guide future development on JBM-HH.

The RPMP documents the comprehensive planning process for JBM-HH through 2030 and is comprised of several components: the Long Range Component (LRC), the Capital Investment Strategy, Short Range Component, Installation Design Guide (IDG), and Real Property Master Plan Digest. The development of the LRC is a three part process that (1) evaluates the existing conditions; (2) examines the functional, spatial, and relationship patterns of existing land use; and, (3) presents the consensus on the direction and location of future installation development. The LRC includes a proposed Land Use Plan and Future Development Plan that identify appropriate land use patterns, based on the operational, cultural, and environmental constraints of the Installation and provides options for land use that will fulfill the future needs of JBM-HH (Figure 2).

Initiatives implemented by JBM-HH in response to federal requirements and regulations determine constraints to development for the Installation. An assessment of existing conditions on and off the Installation analyzed existing baseline information including regional planning, regional demographics, history, facilities, land use, transportation, infrastructure, and utilities as



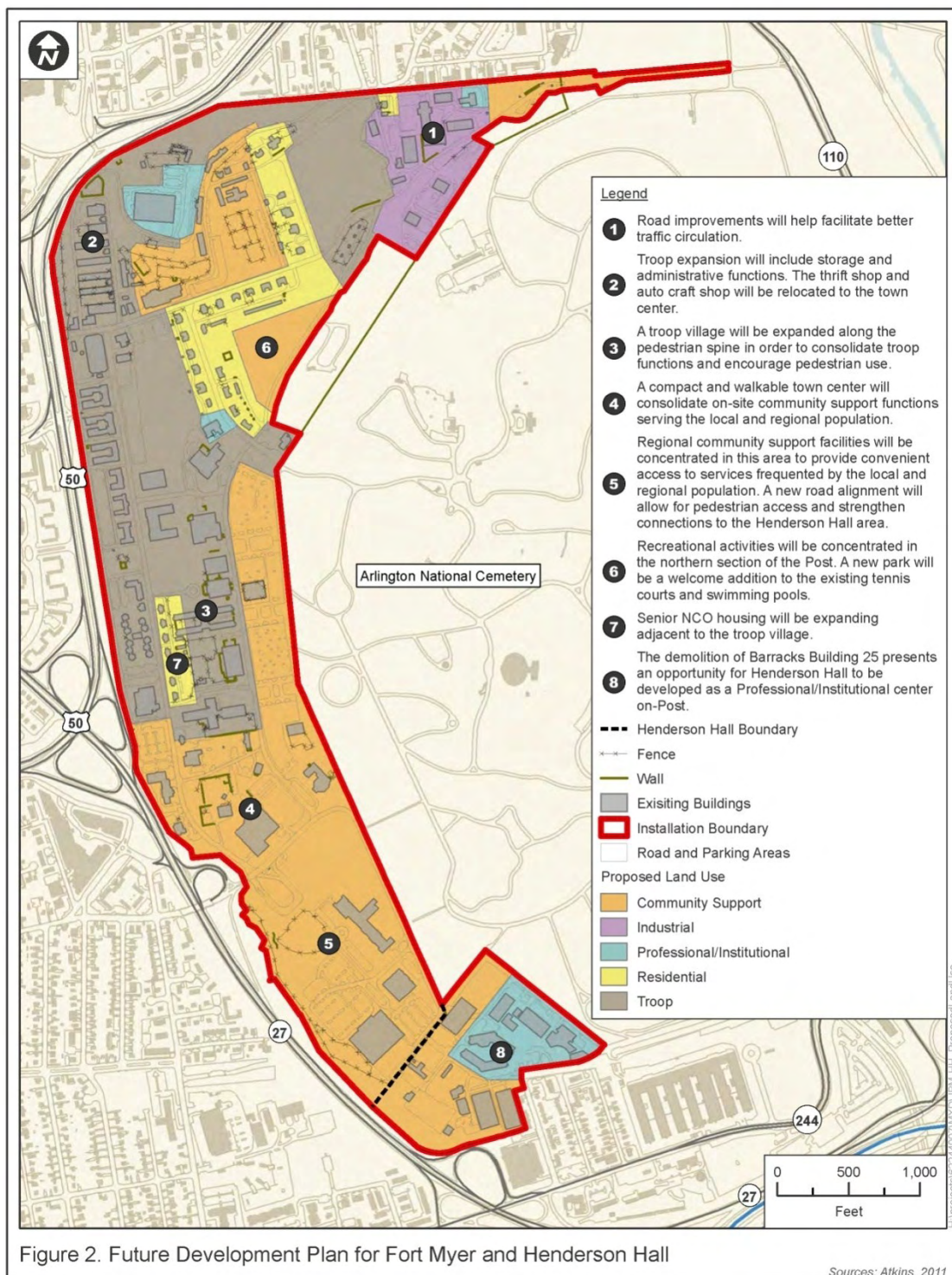
well as physical, natural and cultural resources. Determination of existing conditions resulted in the identification of natural and cultural and operational constraints to development. Natural resource constraints include protection of floodplains, wetlands, and Resource Protection Areas (RPAs); stormwater management, water quality, water table, soil load-bearing capacity, highly erodible soils, steep slopes, and air quality protection. Cultural resources constraints include potential archeological sites, prehistoric sites, viewshed, sites in the National Historic Landmarks District, and National Historic Landmarks listed on the National Register of Historic Places. Operational constraints include construction standards for anti-terrorism/force protection (AT/FP), hazardous waste management units, asbestos and lead-based paint, solid waste management units, petroleum storage areas, and petroleum release sites. When used in association with the land use designations, constraints help to define the developable areas on Fort Myer and Henderson Hall. The following paragraphs describe the Future Development Plan for Fort Myer and Henderson Hall as contained within the RPMP for JBM-HH.

The Future Development Plan proposes new and infill development that focuses on recycling land, space and facilities to meet mission requirements and accommodate growth through 2030; consolidate similar functional uses to achieve work force efficiency, ease of access, and use of infrastructure; maintain the historic mission and character of the installations while providing development to support mission requirements; upgrade and improve utilities; and protect and maintain environmental and cultural resources throughout the installation. The planning frameworks for JBM-HH include frameworks for density, circulation, open space, and viewshed.

The Future Development Plan specific to Fort Myer and Henderson Hall would connect Henderson Hall to Fort Myer to unify the installation under one command for real property responsibilities and reserve sites within Henderson Hall for future Joint Base Mission Uses (Figure 2). To maximize the life of the RPMP, the Future Development Plan would act as flexible guides. Specific projects are not addressed; however, locations and development type are identified. Future Area Development Plans and the Installation Design Guide will address specific details about the layout, size, and character of future development and continue where the LRC ends.

Development Framework

The development framework for Fort Myer and Henderson Hall would consolidate similar functions of land use into core areas to improve efficiency and circulation. Fort Myer and Henderson Hall would be connected via an access road that creates efficient traffic movement. A dense urban core would be created along the primary north-south pedestrian axis of Fort Myer and Henderson Hall using redevelopment of the central area and additional development along the central transportation corridors. Regional support uses for regional and local customers would be located along primary roads and in the central core area in proximity of the public/main gate; a potential parking structure could be located within this area. Infill development to meet mission requirements and areas for expansion would be provided in accordance with the existing development pattern. The Historic District in the north section of Fort Myer would be preserved and infill development would match the historic development pattern.



3701

3702

3703 Future development of Fort Myer and Henderson Hall resulting from implementation of the
3704 RPMP would result in an overall increase in development of 31 percent. The largest amount of
3705 development would occur within the Town Center (178 percent) and the Regional Support Area
3706 (48 percent). The Troop Village area would include development of additional residential,
3707 administrative, and potential parking facilities

3708 **Circulation Framework**

3709 For Fort Myer and Henderson Hall the circulation framework would create a loop road
3710 circulating around the Installation's central urban core and would identify areas where parking
3711 and roadways should be separated to improve traffic circulation. Traffic circulation between
3712 Henderson Hall and Fort Myer would be improved with the creation of a connecting access road.
3713 Proposed intersection improvements would allow large vehicles to move more efficiently
3714 throughout Fort Myer and Henderson Hall. Parking would be consolidated into structures or
3715 shared central areas to alleviate a shortage of parking and in consideration of planning for
3716 increased densities. Pedestrian accessibility would be improved with the creation of a pedestrian
3717 corridor that connects main activity centers on the Installation, would parallel the main roadways
3718 on the Installation, and would provide a multimodal pedestrian network. A new Access Control
3719 Point layout for the main gate that would be incorporated into the circulation framework would
3720 ease congestion and meet Anti-terrorism/Force Protection requirements.

3721 **Future Transportation Plan**

3722 As part of the proposed RPMP development framework, improvements to the internal
3723 transportation network are conceptually presented in the LRC for Fort Myer and Henderson Hall.
3724 Additional traffic studies and design plans would be necessary prior to the implementation of any
3725 improvements.

3726 In general, the existing roadway network at Fort Myer and Henderson Hall would be maintained;
3727 however, improvements to the road system could include widening, insertion of dedicated turn
3728 lanes, and upgrading ACPs to handle future traffic volumes. Facilities south of the main ACP
3729 include the Commissary, CDC, medical clinic, and other regional support services, and as such
3730 would receive regular use from individuals accessing these amenities from on and off Fort Myer.
3731 The Industrial area is a destination for delivery trucks that enter Fort Myer and Henderson Hall
3732 through Hatfield Gate and Department of Public Works. As a result of the vehicular traffic
3733 required to access the Industrial Area and the Town Center area, these areas would be developed
3734 with a vehicle-oriented focus.

3735 Because Fort Myer and Henderson Hall contain a high density of development over a relatively
3736 small area, the pedestrian-friendly corridors and focus areas would provide walkable access. The
3737 Historic District, Troop Village, Town Center (north of the main ACP), and Henderson Hall
3738 would be developed with networks of pedestrian walkways and corridors along main activity
3739 centers, connecting buildings and future potential multimodal transportation facilities.
3740 Conveniently centralized parking facilities would consolidate parking in proximity to pedestrian
3741 access networks.

Consolidation of parking into five new parking structures on the sites of existing surface parking areas to be constructed as needed; and net increase in parking spaces based on the height of the parking structures developed.

Open Space Framework

The open space framework at Fort Myer and Henderson Hall would preserve open space areas for passive recreation and would integrate new recreational facilities throughout the Installation to enhance accessibility and use. The pedestrian network described above under the Circulation Framework would also create a network of open space where it connects all active and passive recreation areas and CDC playgrounds.

Viewshed Framework

The viewshed framework for Fort Myer and Henderson Hall would maintain the viewshed to the Capitol and the historic views of Washington, D.C. from Fort Myer. The viewshed framework would also impose height restrictions to a recommended maximum building height of four-stories within the Arlington National Cemetery (ANC) viewshed buffer to maintain views from the cemetery, and ensure compatibility of adjacent development along the eastern boundary of the Installation adjacent to ANC with cemetery land use and ceremonial functions.

2 Assessment of Probable Effects

The Army would obtain all applicable permits required for the implementation of the proposed action. A review of permits and/or approvals required under the enforceable policies of the Virginia Coastal Resources Management Program would be conducted as projects are proposed for development through the life of the RPMP. The Army has evaluated the implementation of the RPMP on the following enforceable policies of the Virginia Coastal Resources Management Program:

Fisheries – The proposed action has no foreseeable impacts on fish or shellfish resources and would not affect the promotion of commercial or recreational fisheries. JBM-HH is located within the Potomac River drainage basin. Fort Myer and Henderson Hall are located approximately 2 miles west of the Potomac River. An unnamed tributary runs along the southwestern boundary of Fort Myer and Henderson Hall, and drains into the Potomac River via Long Branch Creek. Henderson Hall property drains into Long Branch Creek, a tributary of Four Mile Run which flows into the Potomac River south of Ronald Reagan Washington National Airport.

Contractors would be required to implement best management practices (BMPs) associated with stormwater management to reduce erosion and sediment impacts in accordance with the Virginia Stormwater Management Program. Construction site operators will be required to develop and submit as part of the Virginia Stormwater Management Program Registration Statement, a Stormwater Pollution Prevention Plan that identifies potential sources of pollutants in stormwater discharges from construction or demolition sites; describe control measures that will be used to minimize pollutants in stormwater discharges from the construction/demolition site(s) and comply with the terms and conditions of General Permit VAR10, the “General Permit for

3785 Discharges of Stormwater From Construction Activities”, effective date July 1, 2009 and any
3786 subsequent Virginia Stormwater Management Program and the Virginia Stormwater
3787 Management Act.

3788 **Subaqueous Lands Management** – The Virginia Marine Resources Commission pursuant to
3789 Virginia Administrative Code (VAC) Section 28.2-1204, has jurisdiction over encroachment in,
3790 on, or over, any State-owned rivers, streams, and creeks. The proposed implementation of the
3791 RPMP would have no impact on subaqueous lands.

3792 **Tidal and Non-Tidal Wetlands** - Approximately 1.15 acres of wetlands were identified in three
3793 separate areas on Fort Myer and are contained within two designated RPAs associated with
3794 unnamed tributaries. The largest wetland area is a palustrine-forested wetland of approximately
3795 1.05 acres located within the floodplain of an intermittent stream in the southwest corner of the
3796 Installation. The two remaining wetlands are east of McNair Road on Fort Myer and together
3797 comprise approximately 0.1 acres. The wetland/RPAs are considered constraints to development
3798 within those areas of Fort Myer. There are no wetlands within Henderson Hall. The RPMP
3799 developed a land use plan that defines developable land based on existing constraints including
3800 wetlands and designated RPAs; no impacts to these areas are expected as a result of projects
3801 implemented in association with the RPMP. Final design of project(s) implemented through the
3802 RPMP would avoid impacts to streams, wetlands, and designated RPAs to the extent practicable.
3803 In areas where avoidance would not be possible, the contractor would use culverts or other
3804 methods to minimize impacts, or mitigations would be identified during project planning and
3805 development and would, therefore, have a negligible impact on point source pollution.

3806 **Shoreline Sanitation** – Projects developed under the implemented RPMP would not be
3807 equipped with septic systems and would, therefore, have no impact on shoreline sanitation.

3808 **Air Quality** – Construction, demolition and renovation activities initiated under the RPMP
3809 would result in short-term minor adverse impacts to air quality as a result of the following:

- 3810 • Fugitive dust – generated during construction, demolition or renovation activities,
3811 fugitive dust emissions would be controlled by adherence to local ordinances, application
3812 of water, periodic street sweeping, and wetting down paved roadway surfaces. Annual
3813 estimated emissions of fine particulates, nitrogen oxide, and sulphur dioxide should be
3814 below the thresholds of 100 tons per year which would trigger the General Conformity
3815 Rule.
- 3816 • Emission of volatile organic compounds and nitrogen oxides (precursors of O₃) –
3817 construction, demolition or renovation activities that would cause emissions include the
3818 use of construction equipment, movement of trucks containing materials, use of paving
3819 equipment, commuting of contractor workers. Annual estimated emissions of volatile
3820 organic compounds and nitrogen oxides should be less than the threshold of 50 tons per
3821 year and 100 tons per year, respectively. As a result, the implementation of the RPMP
3822 would not be subjected to the General Conformity Rule; however, as applicable projects
3823 are developed and programmed, the General Conformity Rule may be triggered. Projects
3824 tiering from the Programmatic Environmental Assessment associated with the RPMP
3825 may require separate air quality analyses.

3826 Carbon monoxide levels could increase as a result of future development and increased local
3827 traffic during construction activities and with future growth at Fort Myer and Henderson Hall;
3828 however, the RPMP would strive to improve circulation and increase multi-modal transportation
3829 opportunities and pedestrian-friendly alternatives within Fort Myer and Henderson Hall and,
3830 over the long-term could improve air quality within the installations. No violations of the 1-hour
3831 or 8-hour carbon monoxide standard are expected.

3832 Because construction, demolition and renovation activities would proceed over an approximate
3833 20-year period, emissions would not be generated such that a full General Conformity
3834 Determination would be triggered. No mitigation is required; however, JBM-HH would work
3835 with contractors on proposed projects to prepare and implement construction specifications with
3836 emission control measures to minimize air quality impacts. Measures would include:

- 3837 • Limitations on construction activity on Code Orange, Red and Purple ozone days;
- 3838 • Requirements that all non-diesel equipment be retrofitted with an emission control device
3839 if the equipment does not meet Tier 2 or better standards;
- 3840 • Implementation of anti-idling devices for on-road and non-road vehicles and equipment;
- 3841 • Use of ultra-low sulphur diesel and alternative fuels.

3842 **Dunes Management** – No sand dunes are located at or near Fort Myer and Henderson Hall. The
3843 proposed action would not affect and coastal primary sand dunes.

3844 **Non-Point Source Water Pollution Control** – Land disturbing activities during construction
3845 and demolition would require a Virginia Stormwater Management Program (VSMP) Permit, and
3846 a Stormwater Pollution Prevention Plan (SWPPP). A federal Nationwide Permit # 39 for
3847 Commercial and Institutional Development would be obtained from the USACE Baltimore
3848 District and a state authorization would be obtained from the VDEQ. In addition, JBM-HH
3849 would continue to adhere to requirements set forth under the Virginia Erosion and Sediment
3850 Control Law and Regulations and the Virginia Stormwater Management Program Permit
3851 consistent with the requirements of the Arlington County Stormwater Management Program for
3852 activities initiated within Fort Myer and Henderson Hall.

3853 The implementation of erosion control features for all phases of construction or demolition
3854 would ensure that no sediment laden runoff will exit construction or demolition sites without
3855 proper treatment. BMPs appropriate to activities on Fort Myer and Henderson Hall would be
3856 planned and employed to incorporate all applicable state and local stormwater and erosion
3857 control requirements to offset pollutant loadings in streams. Mechanisms to control erosion and
3858 sediment to efficiently reduce phosphorus entering water bodies would be applied.

3859 Post-construction/demolition BMPs would be incorporated into the site design to ensure proper
3860 treatment for localized runoff that may affect downstream areas, instability of natural channels
3861 receiving stormwater discharges, excess sediment within stream channels, and excess nutrients
3862 from runoff. Low Impact Development (LID) practices and stable outfall assessment and
3863 mitigation would yield stability for the receiving channel and would be employed to reduce any
3864 impacts.

Point Source Water Pollution Control – Wastewater systems are owned by the installations and wastewater is conveyed to the Blue Plains wastewater treatment plant located approximately 4 miles southeast of JBM-HH. Implementation of projects under the RPMP would require project-specific connectivity and improvement as project development occurs, to support projected growth. As future projects are proposed, required renovations to the utility systems would be incorporated into the design process and implemented during construction. JBM-HH would work with VDEQ to revise permits as necessary as projects were implemented under the RPMP at Fort Myer and Henderson Hall and would adhere to all conditions of the permits. Stormwater discharged through conveyances such as separate storm sewers, ditches, channels or other mechanisms are considered point sources under the Clean Water Act, and subject to regulation through the National Pollutant Discharge Elimination System (NPDES) permit program. JBM-HH's Municipal Separate Storm Sewer (MS4) permit requires contractors to comply with the Installation's permit prior to initiating construction/demolition activities and includes submission of a sediment and erosion control plan when one or more acre of ground is disturbed.

Coastal Lands Management – Implementation of the RPMP and construction, demolition or restoration activities under the RPMP would not impact any coastal lands.

Chesapeake Bay Preservation Areas – Fort Myer and Henderson Hall are located in the Chesapeake Bay Preservation Area. Two RPAs are delineated and associated with segments of perennial streams and wetlands and are recognized as constraints to development for those installations. It is the intent of the RPMP to develop projects such that streams or wetlands would be considered during final design stages of projects to avoid encroachment. The implementation of projects under the RPMP would also include BMPs to comply with the Chesapeake Bay Resource Management Area requirements.

2 Summary of Findings

Based on the above analysis, which is elaborated on in the Programmatic Environmental Assessment, JBM-HH personnel would: ensure that contractor personnel use and maintain appropriate BMPs; obtain the requisite permits and approvals; and implement measures to mitigate potential environmental impacts. JBM-HH finds that the proposed implementation of a RPMP would be consistent to the maximum extent practicable with the federally approved enforceable provisions of Virginia CRMP, pursuant to the Coastal Zone Management Act of 1972, as amended and in accordance with 15 CFR 930.30.

APPENDIX B:
PUBLIC INVOLVEMENT

APPENDIX B-1:
PUBLIC SCOPING



DEPARTMENT OF THE ARMY

JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

November 8, 2011

Directorate of Environmental Management

Ms. Ellie Irons, Manager
Office of Environmental Impact Review,
Department of Environmental Quality,
Division of Environmental Enhancement
629 East Main Street, 6th Floor,
Richmond, Virginia 23219

Dear Ms. Irons:

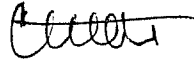
Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia, and Fort McNair, Washington, DC has developed a Real Property Master Plan, (RPMP) to guide the long-range use of land and facilities on the installation. Fort Myer and Henderson Hall are located adjacent to Arlington National Cemetery in Arlington, Virginia and directly across the Potomac River from Washington, D.C (Figure 1). Fort McNair is located on a peninsula south of P Street in Southwest Washington, D.C. at the confluence of the Washington Channel of the Potomac River and the Anacostia River (Figure 2). The three posts comprise an installation of approximately 380 acres: Fort Myer (243 acres); Henderson Hall (29 acres); and Fort McNair (107 acres). Generally, the area surrounding the installation is densely populated and of urban-suburban character. Because of land constraints, the RPMP focuses on future projects, existing facilities uses, and developed areas to achieve its strategic goals of directing the growth at JBM-HH to 2030. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the installation in a sustainable manner.

An Environmental Assessment is being prepared to assess the potential impacts resulting from the implementation of the RPMP. Environmental resources will include but not limited to cultural resources, air, infrastructure, transportation, water, vegetation, habitat, and wildlife including the potential for impacts to rare, threatened and endangered species.

In order to comply with its obligation under the National Environmental Policy Act (NEPA), JBM-HH respectfully requests any comments or concerns your agency may have regarding environmental impacts from the RPMP to resources in the project areas depicted on Figures 1 and 2.

If you have any questions or comments, please contact Kristie Lalire by email at kristie.lalire@conus.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Coffman", with a horizontal line extending to the right.

Carl R. Coffman, Jr.
Colonel, US Army
Commanding

Enclosure



COMMONWEALTH of VIRGINIA

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Secretary of Natural Resources

David K. Paylor
Director

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December 5, 2011

Colonel Carl R. Coffman, Jr.
Commanding Officer, Directorate of Environmental Management
Joint Base Myer – Henderson Hall
204 Lee Avenue
Fort Myer, Virginia 22211-1199

RE: Real Property Master Plan, Joint Base Myer-Henderson Hall

Dear Colonel Coffman:

Thank you for your November 8 letter (received November 18) regarding the intention of Joint Base Myer-Henderson Hall (JBM-HH) to prepare an Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) covering the Real Property Master Plan for the Fort Myer, Henderson Hall, and Fort McNair installations in Arlington, Virginia and Washington, D.C.

PROJECT DESCRIPTION

According to your letter, JBM-HH has developed a Real Property Master Plan (RPMP) intended to guide the long-range (to the year 2030) uses of land and facilities on the installation. The installation consists of:

- Fort McNair (107 acres, lying on a peninsula south of P Street, S.W. where the Anacostia River meets the Potomac River in Washington, D.C.),
- Fort Myer (243 acres, adjacent to Arlington Cemetery and east of U.S. Route 50 in Arlington, Virginia), and
- Henderson Hall (29 acres, adjacent to Fort Myer and Arlington Cemetery at the southern end of Fort Myer).

You indicate that the RPMP focuses on future projects, existing uses, and developed areas to accommodate existing, planned, and future needs of the installation in a sustainable manner.

ENVIRONMENTAL REVIEW UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT

The roles of the Virginia Department of Environmental Quality (DEQ) in relation to the project are as follows. First, DEQ's Office of Environmental Impact Review (OEIR) will coordinate Virginia's review of the EA and comment to JBM-HH on behalf of the Commonwealth. A similar review process will pertain to the Federal Consistency Determination (FCD) (next paragraph). If the FCD is provided as part of the environmental document, there can be a single review.

FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT

Pursuant to the Coastal Zone Management Act of 1972, as amended, federal activities affecting Virginia's coastal resources or coastal uses must be consistent with the Virginia Coastal Zone Management Program (VCP) (see section 307(c)(1) of the Act and the *Federal Consistency Regulations*, 15 CFR Part 930, subpart C, sections 930.30 *et seq.*). JBM-HH must provide a consistency determination which includes an analysis of the proposed activities in light of the enforceable policies of the VCP (first enclosure) and a commitment to comply with the enforceable policies. In addition, we invite your attention to the advisory policies of the VCP (second enclosure). As indicated, the FCD may be provided as part of the environmental document or independently, depending on JBM-HH's preference. We recommend, in the interests of an effective review, that the FCD be provided with the environmental document and that 60 days be allowed for review, in keeping with the *Federal Consistency Regulations* (see section 930.41(a)). Section 930.39 of these *Regulations*, and Virginia's *Federal Consistency Information Package* (available at <http://www.deq.virginia.gov/eir/federal.html>) give content requirements for the FCD.

PROJECT SCOPING AND AGENCY INVOLVEMENT

While this Office does not participate in scoping efforts beyond the advice given herein, other agencies are free to provide scoping comments concerning the preparation of the EA. Accordingly, we are sharing our response to the letter with selected state and local Virginia agencies which have responsibilities bearing on the subject of the EA. These are likely to include the following (note: starred (*) agencies administer one or more of the enforceable policies of the VCP):

Department of Environmental Quality:

- Office of Environmental Impact Review
- Northern Regional Office*
- Air Division*

- Division of Land Protection and Revitalization (formerly Waste Division)

Department of Conservation and Recreation:

- Division of Stormwater Management*
- DSM –Local Implementation*
- Division of Planning and Recreation Resources

Department of Health (Division of Water Programs)*

Department of Game and Inland Fisheries*

Department of Historic Resources

Northern Virginia Regional Commission

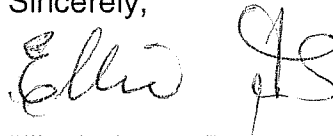
Arlington County.

In order to ensure an effective coordinated review of the environmental document and FCD, we will require 18 copies of the EA and FCD when they are published. This submission may include 4 printed copies and 14 CDs, or 4 printed copies and an electronic copy available for download at a web site or ftp site. The document should include a U.S. Geological Survey topographic map as part of its information. We recommend, as well, that project details unfamiliar to people outside JBM-HH be adequately described.

If you have questions about the environmental review process or the federal consistency review process, please feel free to call me at (804) 698-4325 or John Fisher at (804) 698-4339.

I hope this information is helpful to you.

Sincerely,



Ellie L. Irons, Program Manager
Environmental Impact Review

Attachments

cc: David Hartshorn, DEQ-NRO
Kotur S. Narasimhan, DEQ-Air
Stephen Coe, DEQ-DLPR
Roberta Rhur, DCR
Amy M. Ewing, DGIF
Barry Mathews, VDH
Roger W. Kirchen, DHR
G. Mark Gibb, NVRC
Barbara Donnellan, Arlington County



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Attachment 1

Enforceable Regulatory Programs comprising Virginia's Coastal Zone Management Program (VCP)

- a. Fisheries Management - The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the Marine Resources Commission (VMRC); Virginia Code 28.2-200 to 28.2-713 and the Department of Game and Inland Fisheries (DGIF); Virginia Code 29.1-100 to 29.1-570.

The State Tributyltin (TBT) Regulatory Program has been added to the Fisheries Management program. The General Assembly amended the Virginia Pesticide Use and Application Act as it related to the possession, sale, or use of marine antifoulant paints containing TBT. The use of TBT in boat paint constitutes a serious threat to important marine animal species. The TBT program monitors boating activities and boat painting activities to ensure compliance with TBT regulations promulgated pursuant to the amendment. The VMRC, DGIF, and Virginia Department of Agriculture Consumer Services (VDACS) share enforcement responsibilities; Virginia Code 3.1-249.59 to 3.1-249.62.

- b. Subaqueous Lands Management - The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects on marine and fisheries resources, tidal wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the Department of Environmental Quality (DEQ). The program is administered by the Marine Resources Commission; Virginia Code 28.2-1200 to 28.2-1213.

- c. Wetlands Management - The purpose of the wetlands management program is to preserve wetlands, prevent their despoliation, and accommodate economic development in a manner consistent with wetlands preservation.

(1) The tidal wetlands program is administered by the Marine Resources Commission; Virginia Code 28.2-1301 through 28.2-1320.

(2) The Virginia Water Protection Permit program administered by DEQ includes protection of wetlands --both tidal and non-tidal; Virginia Code §62.1-44.15:5 and Water Quality Certification pursuant to Section 401 of the Clean Water Act.

Attachment 1 continued

Page 2

- d. Dunes Management - Dune protection is carried out pursuant to The Coastal Primary Sand Dune Protection Act and is intended to prevent destruction or alteration of primary dunes. This program is administered by the Marine Resources Commission; Virginia Code 28.2-1400 through 28.2-1420.
- e. Non-point Source Pollution Control – (1) Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. This program is administered by the Department of Conservation and Recreation; Virginia Code 10.1-560 et seq.

(2) Coastal Lands Management is a state-local cooperative program administered by the DCR's Division of Chesapeake Bay Local Assistance and 84 localities in Tidewater (see i) Virginia; Virginia Code §10.1-2100 –10.1-2114 and 9 VAC10-20 et seq.
- f. Point Source Pollution Control - The point source program is administered by the State Water Control Board (DEQ) pursuant to Virginia Code 62.1-44.15. Point source pollution control is accomplished through the implementation of:
 - (1) the National Pollutant Discharge Elimination System (NPDES) permit program established pursuant to Section 402 of the federal Clean Water Act and administered in Virginia as the Virginia Pollutant Discharge Elimination System (VPDES) permit program.
 - (2) The Virginia Water Protection Permit (VWPP) program administered by DEQ; Virginia Code §62.1-44.15:5 and Water Quality Certification pursuant to Section 401 of the Clean Water Act.
- g. Shoreline Sanitation - The purpose of this program is to regulate the installation of septic tanks, set standards concerning soil types suitable for septic tanks, and specify minimum distances that tanks must be placed away from streams, rivers, and other waters of the Commonwealth. This program is administered by the Department of Health (Virginia Code 32.1-164 through 32.1-165).
- h. Air Pollution Control - The program implements the federal Clean Air Act to provide a legally enforceable State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards. This program is administered by the State Air Pollution Control Board (Virginia Code 10-1.1300 through §10.1-1320).
- (i) Coastal Lands Management is a state-local cooperative program administered by the DCR's Division of Chesapeake Bay Local Assistance and 84 localities in Tidewater, Virginia established pursuant to the Chesapeake Bay Preservation Act; Virginia Code §10.1-2100 –10.1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Administrative Code 9 VAC10-20 et seq.



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Attachment 2

Advisory Policies for Geographic Areas of Particular Concern

- a. Coastal Natural Resource Areas - These areas are vital to estuarine and marine ecosystems and/or are of great importance to areas immediately inland of the shoreline. Such areas receive special attention from the Commonwealth because of their conservation, recreational, ecological, and aesthetic values. These areas are worthy of special consideration in any planning or resources management process and include the following resources:
 - a) Wetlands
 - b) Aquatic Spawning, Nursery, and Feeding Grounds
 - c) Coastal Primary Sand Dunes
 - d) Barrier Islands
 - e) Significant Wildlife Habitat Areas
 - f) Public Recreation Areas
 - g) Sand and Gravel Resources
 - h) Underwater Historic Sites.
- b. Coastal Natural Hazard Areas - This policy covers areas vulnerable to continuing and severe erosion and areas susceptible to potential damage from wind, tidal, and storm related events including flooding. New buildings and other structures should be designed and sited to minimize the potential for property damage due to storms or shoreline erosion. The areas of concern are as follows:
 - i) Highly Erodible Areas
 - ii) Coastal High Hazard Areas, including flood plains.
- c. Waterfront Development Areas - These areas are vital to the Commonwealth because of the limited number of areas suitable for waterfront activities. The areas of concern are as follows:
 - i) Commercial Ports
 - ii) Commercial Fishing Piers
 - iii) Community Waterfronts

Although the management of such areas is the responsibility of local government and some regional authorities, designation of these areas as Waterfront Development Areas of Particular Concern (APC) under the VCRMP is encouraged.

Designation will allow the use of federal CZMA funds to be used to assist planning for such areas and the implementation of such plans. The VCRMP recognizes two broad classes of priority uses for waterfront development APC:

- i) water access dependent activities;
- ii) activities significantly enhanced by the waterfront location and complementary to other existing and/or planned activities in a given waterfront area.

Advisory Policies for Shorefront Access Planning and Protection

- a. Virginia Public Beaches - Approximately 25 miles of public beaches are located in the cities, counties, and towns of Virginia exclusive of public beaches on state and federal land. These public shoreline areas will be maintained to allow public access to recreational resources.
- b. Virginia Outdoors Plan - Planning for coastal access is provided by the Department of Conservation and Recreation in cooperation with other state and local government agencies. The Virginia Outdoors Plan (VOP), which is published by the Department, identifies recreational facilities in the Commonwealth that provide recreational access. The VOP also serves to identify future needs of the Commonwealth in relation to the provision of recreational opportunities and shoreline access. Prior to initiating any project, consideration should be given to the proximity of the project site to recreational resources identified in the VOP.
- c. Parks, Natural Areas, and Wildlife Management Areas - Parks, Wildlife Management Areas, and Natural Areas are provided for the recreational pleasure of the citizens of the Commonwealth and the nation by local, state, and federal agencies. The recreational values of these areas should be protected and maintained.
- d. Waterfront Recreational Land Acquisition - It is the policy of the Commonwealth to protect areas, properties, lands, or any estate or interest therein, of scenic beauty, recreational utility, historical interest, or unusual features which may be acquired, preserved, and maintained for the citizens of the Commonwealth.
- e. Waterfront Recreational Facilities - This policy applies to the provision of boat ramps, public landings, and bridges which provide water access to the citizens of the Commonwealth. These facilities shall be designed, constructed, and maintained to provide points of water access when and where practicable.
- f. Waterfront Historic Properties - The Commonwealth has a long history of settlement and development, and much of that history has involved both shorelines and near-shore areas. The protection and preservation of historic shorefront properties is primarily the responsibility of the Department of Historic Resources. Buildings, structures, and sites of historical, architectural, and/or archaeological interest are significant resources for the citizens of the Commonwealth. It is the policy of the Commonwealth and the VCRMP to enhance the protection of buildings, structures, and sites of historical, architectural, and archaeological significance from damage or destruction when practicable.



DEPARTMENT OF THE ARMY

JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

November 8, 2011

Directorate of Environmental Management

Mr. Marc E. Holma
Office of Review and Compliance
Virginia Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221

Dear Mr. Holma:

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia, and Fort McNair, Washington, DC has developed a Real Property Master Plan, (RPMP) to guide the long-range use of land and facilities on the installation. Fort Myer and Henderson Hall are located adjacent to Arlington National Cemetery in Arlington, Virginia and directly across the Potomac River from Washington, D.C (Figure 1). Fort McNair is located on a peninsula south of P Street in Southwest Washington, D.C. at the confluence of the Washington Channel of the Potomac River and the Anacostia River (Figure 2). The three posts comprise an installation of approximately 380 acres: Fort Myer (243 acres); Henderson Hall (29 acres); and Fort McNair (107 acres). Generally, the area surrounding the installation is densely populated and of urban-suburban character. Because of land constraints, the RPMP focuses on future projects, existing facilities uses, and developed areas to achieve its strategic goals of directing the growth at JBM-HH to 2030. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the installation in a sustainable manner.

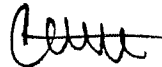
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In order to comply with its obligation under the National Environmental Policy Act (NEPA), JBM-HH respectfully requests any comments or concerns your agency may have regarding environmental impacts from the RPMP to resources in the project areas depicted on Figures 1 and 2.



If you have any questions or comments, please contact Kristie Lalire by email at kristie.lalire@conus.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read 'Coffman'.

Carl R. Coffman, Jr.
Colonel, US Army
Commanding

Enclosure



COMMONWEALTH of VIRGINIA

Department of Historic Resources

Douglas W. Domenech
Secretary of Natural Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Kathleen S. Kilpatrick
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
TDD: (804) 367-2386
www.dhr.virginia.gov

24 May 2011

Mr. Francis A. Douglas
Department of the Army
Headquarters, US Army Garrison, Fort Myer
204 Lee Avenue
Fort Myer, Virginia 22211-1199

Re: Draft Joint Base Myer Henderson Hall (JBM-HH) Master Plan
Fort Myer, Virginia
DHR File No. 2011-0616

Dear Mr. Douglas:

The Department of Historic Resources (DHR) has received for our review and comment the three reports that constitute the draft Joint Base Myer-Henderson Hall (JBM-HH) Master Plan prepared by Atkins for Installation Management Command, Northeast Region (IMCOM-NER). The three reports provided for our consideration are "Joint Base Real Property Master Plan: Installation Design Guide" (April 2011), "Joint Base Real Property Master Plan: Long Range Component" (April 2011), and "Joint Base Real Property Master Plan: Capital Investment Strategy and Short Range Component" (April 2011). The "Installation Design Guide" also includes Fort McNair located in Washington, DC. Since this installation is outside of DHR's purview our comments are limited to only those sections of the report dealing with JBM-HH. Please accept the following as our comment on the above referenced reports.

Installation Design Guide

- Page ES-2, Section ES.1.4 Buildings: Please include mass and scale in the list of items discussed
- Page 1-1, third paragraph, last word, fifth line: Change "he" to "the"
- Page 1-1, fifth paragraph, first line: It should be noted here that Fort Myer does not only contain an historic district, but that the National Park Service (NPS) designed that historic district a National Historic Landmark (NHL), its highest recognition.
- Page 1-1, fifth paragraph, end of paragraph: Other agencies or groups that need to be included in those to be consulted are the NPS's Philadelphia office due to the historic district's status as an NHL and Arlington National Cemetery (ANC) when projects may indirectly affect its property through visual intrusions or increases in noise.
- Page 2-5, third paragraph: A summary of Section 106, what it requires, and the principle players within the Section 106, should be included here.

Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6416
Fax: (804) 862-6196

Capital Region Office
2801 Kensington Office
Richmond, VA 23221
Tel: (804) 367-2323
Fax: (804) 367-2391

Tidewater Region Office
14415 Old Courthouse Way 2nd
Floor
Newport News, VA 23608
Tel: (757) 886-2807
Fax: (757) 886-2808

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5428
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7031
Fax: (540) 868-7033

- Page 3-2, second bullet point under “Protection and maintain environmental and cultural resources”: It should be noted that implementation of sustainable design practices are often at odds with accepted preservation practices and *The Secretary of the Interior's Standards for the Treatment of Historic Properties* (Standards). One should consider the implications to significant materials and fabric when designing “green” improvement for historic buildings.
- Page 3-4, Section 3.4.1. “Design Principles”: Material selection should also be included in this list.
- Page 4-11, third full paragraph, first word: Is “Through” supposed to be “Though”?
- Page 5-2, second paragraph, second bullet point: Does “The Historic District Theme” boundaries accurately reflect the Fort Myer NLH District boundary? Also, it should be noted that historic properties may be located outside of NHL district as well. How will these properties be treated per the guidelines?
- Page 5-15, Section 5.4.7., fourth bullet point: For those boundaries with ANC the cemetery should be included in discussions regarding vegetative screenings.
- Page 5-27, Section 5.5.7, “Circulation”: It should be noted that some of the existing circulation patterns may be historic and contribute to the NHL district. Changes in such historic circulation patterns may constitute an adverse effect under Section 106.
- Page 6-1. Please note that for those future projects at JBM-HH that involve ground disturbing activities archaeological investigations may be necessary. Also, it is important from a Section 106 standpoint to think about potential consulting parties (e.g. ANC) that the base may want to involve for each of these undertakings.
- Page 7-2, Section 7.3 “Site Planning Objectives”, first bullet point: Have the “historically significant landscape elements” been systematically surveyed and identified?
- Page 8-1, first paragraph, third bullet point: Although in certain situations the use of new material is acceptable, the preferred option is to replace in-kind, to include material. This occurs elsewhere in the document such as Section 8.3.1 and should be corrected throughout.
- Page 8-1, third paragraph: The Standards also apply to JBM-HH, not just Fort McNair. Please include JBM-HH in this discussion. Also, what is meant by “local monitoring agencies”? Consultation with the State Historic Preservation Office (SHPO) should be included here and elsewhere when discussion of project coordination occurs.
- Page 8-6, Section 8.3 “Design Objectives”, first bullet point: It should be noted that implementation of sustainable design practices are often at odds with accepted preservation practices and *The Secretary of the Interior's Standards for the Treatment of Historic Properties* (Standards). One should consider the implications to significant materials and fabric when designing “green” improvement for historic buildings. For example, when adapting historic buildings with new energy efficiency technologies this usually means the replacement of the existing windows, which are considered character-defining features.
- Page 8-6, Section 8.3.1, last paragraph: The Standards also apply to JBM-HH, not just Fort McNair. Please include JBM-HH in this discussion.
- Page 8-7, Section 8.4.1 “Large Additions” under “Materials”, third bullet point: historic properties may be located outside of NHL district as well. How will these properties be treated

per the guidelines?

- Page 8-7, Section 8.4.1 “Large Additions” under “Door and Window Openings”, second bullet point: There should not be a space between “opening” and the letter “s”.
- Page 8-19, Section 8.9.1 “Brick” under “Repointing”: Reference should be made to check the guidance in National Park Service publication “Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings”.
- Page 8-19, Section 8.9.2 “Stone”: Reference should be made to check the guidance in National Park Service publication “Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings” and “Preservation Brief 42: The Maintenance, Repair, and Replacement of Historic Cast Stone”.
- Page 8-19, Section 8.9.3 “Painting and Cleaning Masonry” under “Painting”: The last bullet is not relevant since the Standards do not specifically address treatment issues. Reference should be made to the guidance found in applicable Preservation Briefs.
- Page 8-19, Section 8.9.3 “Painting and Cleaning Masonry” under “Cleaning”: Reference should be made to check the guidance in National Park Service publication “Preservation Brief 1: The Cleaning and Waterproofing Coating of Masonry Buildings” and “Preservation Brief 6: Dangers of Abrasive Cleaning to Historic Buildings”.
- Page 10-1, “Landscape Design Standards”: Depending on the nature and location of new plantings archaeological survey may be necessary.
- Page 10-13, Section 10.10.3 “Berm Screens”: The two paragraphs need to be separated by a space.
- Page 11-22, Section 11.8 “Walls/Fences”: JBM-HH will need to coordinate walls and fences with ANC that are along common property boundaries.
- Page 12-1, “Force Protection Design Standards”: The DHR understands and appreciates the need to adequately protect service members, DoD civilians, and family members living and working on post. However, the AT/FP requirements should be guided by common sense as well as force protection needs when applied to historic buildings. Rigid application of the AT/FP standards to historic buildings may result in adverse effects.

Long Range Component

- Page 1-5, Section 1.7 “Master Plan Guiding Principles” under “Protect and maintain environmental and cultural resources”: It should be noted that implementation of sustainable design practices are often at odds with accepted preservation practices and *The Secretary of the Interior's Standards for the Treatment of Historic Properties* (Standards). One should consider the implications to significant materials and fabric when designing “green” improvement for historic buildings.
- Page 1-5, Section 1.7 “Master Plan Guiding Principles” under “Protect and maintain environmental and cultural resources”, last bullet point: The terminology used in this bullet point is somewhat inconsistent with what DHR would use. First, it should be made clear that in Virginia the Department of Historic Resources is the State Historic Preservation Office (SHPO).

Also, we recommend stating “Conduct an architectural review of those buildings and structures at JBM-HH 50 years old or older in consult with the Virginia SHPO and according to its survey guidelines and standards.” Finally, Fort McNair is in Washington, DC, not Virginia, therefore is outside of DHR’s jurisdiction. Issues involving Fort McNair need to be coordinated with the District of Columbia’s Historic Preservation Office.

- Page 2-16, Section 2.5 “Regional Comprehensive Plans”: The JBM-HH Master Plan should be coordinated with many different regional entities to include local governments, ANC, the National Park Service at George Washington Memorial Parkway, and the Department of Defense at the Pentagon.
- Page 2-42, Section 2.7.3 “Cultural Resources” under “Fort Myer”, second paragraph: Please include mention that designation as an NHL is the National Park Service’s highest recognition.
- Page 2-42, Section 2.7.3 “Cultural Resources”, under “Henderson Hall”, second paragraph: Please include “known” between “no” and “significant” in the second line.
- Page 2-48, “Force Protection”: The DHR understands and appreciates the need to adequately protect service members, DoD civilians, and family members living and working on post. However, the AT/FP requirements should be guided by common sense as well as force protection needs when applied to historic buildings. Rigid application of the AT/FP standards to historic buildings may result in adverse effects.
- Page 2-94, Section 2.11 “Infrastructure/Utilities”: Please note that any project that involves ground disturbance may require archaeological survey.
- Page 3-10, Section 3.5 “Spatial Relationships”, fourth paragraph: Under Section 106 the SHPO does not provide its “approval”, but is simply given the opportunity to review and comment on federal undertakings. Also, Section 106 consultation is triggered by the expenditure of federal funds or issuance of a federal license or permit, not by the presence or absence of historic properties. Therefore, consultation with the SHPO pursuant to Section 106 is required for any Army undertaking at JBM-HH regardless if it is in the NHL District or not.
- Page 4-18, Section 4.4.7 “Future Development Plan”: All of these proposed undertakings will require consultation with DHR pursuant to Section 106. We recommend development of a Programmatic Agreement (PA) for the implementation of the JBM-HH Master Plan rather than consulting on each individual undertaking separately.

Capital Investment Strategy and Short Range Component

- Page 1-4, Section 1.4 “Major Planning Goals”, tenth bullet point: Accommodating historic buildings for ADA accessibility may have adverse effects. Please reference the guidance in “Preservation Brief 32: Making Historic Properties Accessible”.
- Page 1-4, Section 1.4 “Major Planning Goals” under “Protect and maintain environmental and cultural resources”: It should be noted that implementation of sustainable design practices are often at odds with accepted preservation practices and *The Secretary of the Interior’s Standards for the Treatment of Historic Properties* (Standards). One should consider the implications to significant materials and fabric when designing “green” improvement for historic buildings.

Page 5
24 May 2011
Mr. Francis A. Douglas

- Chapter 3 "Facility Category Group Analysis": The undertakings described in this chapter will need to be coordinated with the SHPO pursuant to Section 106.
- Chapter 4 "Short Range Component": The undertakings described in this chapter will need to be coordinated with the SHPO pursuant to Section 106.

If you have any questions about our comments, please call me at (804) 367-2323, Ext. 114.

Sincerely,

A handwritten signature in dark ink, appearing to read "Marc Holma". The signature is fluid and cursive, with the first name "Marc" being more prominent and the last name "Holma" following in a similar style.

Marc Holma, Architectural Historian
Office of Review and Compliance



DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

November 8, 2011

Directorate of Environmental Management

Dr. Mary J. Ratnaswamy,
Program Supervisor, Threatened and Endangered Species
U.S. Fish and Wildlife Service
Chesapeake Bay Field Office
177 Admiral Cochrane Drive,
Annapolis, Maryland 21401-7307

Dear Dr. Ratnaswamy:

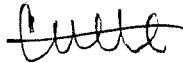
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An Environmental Assessment is being prepared to assess the potential impacts resulting from the implementation of the RPMP. Environmental resources will include but not limited to cultural resources, air, infrastructure, transportation, water, vegetation, habitat, and wildlife including the potential for impacts to rare, threatened and endangered species.

In order to comply with its obligation under the National Environmental Policy Act (NEPA), JBM-HH respectfully requests any comments or concerns your agency may have regarding the environmental impacts from the RPMP to resources in the project area depicted on Figures 1 and 2.

If you have questions or comments, please contact Kristie Lalire by email at kristie.lalire@conus.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Coffman", written over a horizontal line.

Carl R. Coffman, Jr.
Colonel, US Army
Commanding

Enclosure



DEPARTMENT OF THE ARMY

JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

November 8, 2011

Directorate of Environmental Management

District Department of the Environment,
Government of the District of Columbia
1200 First Street, Fifth Floor,
Northeast Washington, D.C. 20002

To Whom It May Concern:

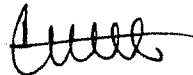
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If you have any questions or comments, please contact Kristie Lalire by email at kristie.lalire@conus.army.mil.

Sincerely,

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Carl R. Coffman, Jr.
Colonel, US Army
Commanding

Enclosure



DEPARTMENT OF THE ARMY

JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

November 8, 2011

Directorate of Environmental Management

Mr. Timothy Dennee
Historic Preservation Office
Office of Planning
1100 4th Street, SW, Suite E650
Washington, DC 20024

Dear Mr. Dennee:

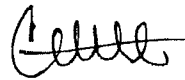
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Sincerely,

A handwritten signature in black ink, appearing to read 'Coffman' with a stylized flourish at the end.

Carl R. Coffman, Jr.
Colonel, US Army
Commanding

Enclosure

GOVERNMENT OF THE DISTRICT OF COLUMBIA
HISTORIC PRESERVATION OFFICE



May 13, 2011

Francis A. Douglas, Chief
Environmental Division
Headquarters, U.S. Army Garrison, Fort Myer
204 Lee Avenue
Fort Myer, Virginia 22211-1199

Dear Mr. Douglas:

Thank you for your sending the Joint Base Real Property Master Plan for comment. On the whole, it is a well-done and valuable document. For our purposes, we think that the *Installation Design Guide* will provide very useful direction to planners and decision-makers.

We have several comments on the ideas or proposals set forth in the documents, related solely to Fort McNair, of course, and to the potential preservation implications.

Relocation of buildings

Perhaps the most troubling idea set forth in the master plan appears not to be a preferred direction, as it appears as an alternative in Appendix B (pages B-6 and B-7) of the *Long-Range Component*. It is the notion that Buildings 17, 20 and 21 might be relocated off the parade ground. While this would have the effect of better fulfilling the McKim, Mead and White plan, it would harm the integrity of setting of the buildings themselves, among the last remnants of the District of Columbia Penitentiary and the Washington Arsenal. As the fort has evolved, there is a balance between the eras of its development, including the new construction to the east. Moving some of the oldest buildings would cause seriously adverse effects, would be costly, and would likely be of dubious functional benefit.

Parking, paving and transportation

The proposal for a parking structure near the northwest corner of the installation appears to require the demolition of the historic Building 50 (*Long-Range Component* pages 4-4/4-5, 4-8/4-9 and 4-20/4-21), another serious adverse effect. We support the idea of consolidating parking, especially to relieve pressures to widen roads and pave areas around the parade ground. But it seems as though the large, new construction east of the wall is displacing surface parking and forcing more spaces into the historic installation. Pages 3-20/3-21 of the *Long-Range Component* say that historic Buildings 16 and 19 “will be demolished,” also major adverse effects on those resources, obviously, but the loss of each affects the integrity of the whole fort. The *Design Guide* appears to justify this by characterizing some historic buildings as “worn” (pages 5-77 and 5-82)—as if all of their contemporaries did not also require maintenance and repair—or “inconsistent in architectural style

with the prevailing Campus Theme” (pages 5-70 and 5-82), as if history were as neat and convenient as matters of taste. Proposed demolitions will require a public consultation. Any parking structures would have to be very carefully designed for compatibility with the historic context.

Parking is an issue to the extent it requires additional paving. While the stated aim of the *Long-Range Component* (page 4-8) is to remove paving to consolidate parking, increase green space, and better meet force-protection requirements, in some places parking surfaces have increased recently, as behind Buildings 23-28 and on D Street, and will increase shortly on 5th Avenue. The *Design Guide* foresees the increase of parking on and off of C Street (pages 6-14/6-15) in a manner and extent that will degrade the setting of Buildings 21 and 17. Permeable paving is welcomed, but arranging the C Street parking in a more symmetrical pattern is of dubious value; while the fort’s plan incorporated formal symmetry, we do not believe that McKim had in mind parking lots oriented on a cross axis. This particular arrangement shifts the present parking lots so that they become the front yards of two of the historic buildings.

According to the *Long-Range Component* (page 4-8), the plan “maintains the pedestrian-only gate” at P Street. This does not clarify whether the historic gate will also continue to be a secondary vehicular entrance, and thus does not resolve whether the previously proposed keyed-entry system and security booth/canopy will be pursued further.

New construction

Another important issue is the proposed new construction east of the parade ground. In keeping with McKim’s plan, the east side of the parade ground is an appropriate place for further development, but such development must be very carefully designed and implemented, compatible with the size, massing, scale, materials and proportions of the historic buildings and without compromising the overall landscape. The level of effort and the level of scrutiny will have to be higher than for the large buildings on the former “Tempo C” parcel east of the historic wall. Perhaps a little too freely characterized as “unrestricted development” in the *Design Guide*, the standards for review of buildings outside the wall have not been strict, both because they are partly screened by the wall and because they stand beyond the historic precinct of the fort. The *Design Guide* (page 4-13) identifies the size and scale of some of these newer buildings as problematic in relationship to McKim’s plan overall, and to the National War College building in particular. Buildings along the parade ground need the greatest attention to detail and to fitting in well. This is particularly true for large buildings—such as the JFHQ-NCR and the NDU expansion. And will these conform to the ratio of building coverage to site area specified in the *Design Guide* at page 7-15?

The NDU expansion may be well in the future, but there are others that appear imminent, including the JFHQ-NR. That, the pool facility, and the Third Military Police Platoon Barracks are mentioned on page 4-6 of the *Short-Range Component*, and I do not believe we have seen any. As the target date of each is short, we probably ought to commence review soon.

Despite the comments above about potential adverse effects, we would not go so far to say (as the *Long-Range Component* does at page 2-45 and 2-113) that “development must avoid all NRHP that

are listed as archaeological sites, buildings and historic districts,” that the “historic district prohibits changes to buildings,” and that “historic district prohibits ADA compliance in facilities.” These statements are at odds with some of the potential projects mentioned above. Further, while we agree with the statement that “historic buildings should generally be avoided” for considerable alteration or demolition, we expect projects such as new construction, additions, interior rehab, and minor alterations, and there is an established process for resolving adverse effects that balances the functional and preservation interests.

Force protection

Force protection is an abiding challenge, although Fort McNair has managed security measures well by limiting access from the P Street gate and taking advantage of “Tempo C” and adjacent parcels to provide a new gate, barriers and standoff distance. It has thus admirably preserved the campus-like appearance of the installation’s interior. We have observed that military installations focus a great deal on perimeter security but frequently discount its efficacy by then requiring a substantial standoff from internal streets. The *Design Guide* encourages adherence to the latest force-protection regulations and consideration of building hardening and other measures when the ideal or lowest-cost measures might be inappropriate or impossible (pages 5-76/5-77, 5-88/5-89). It remains to be seen how this can be achieved with existing standoffs, as from the seawall and from the present internal circulation system. The *Guide* acknowledges that there space available for standoff, but this space works less well for the purpose if there are no barriers. Historic buildings are difficult to harden, so should we expect proposals for bollards even within the historic precincts of the campus? It appears that the PFC pool structure may fall within the perimeter security buffer; that may be a difficult type of structure to harden, although it is of little historic preservation import.

Archaeology and Section 110 compliance

The *Long-Range Component* (page 2-45), mentions only the potential for prehistoric resources at the fort. While these certainly may be present, there is a greater potential for historic archaeological resources relating to the first fort on this site, to the penitentiary, and the arsenal. This certainly deserves mention in the document. We are gratified to hear from the cultural resources manager that there is consideration of archaeological investigation of the installation. In furtherance of the aims of Section 110 of the National Historic Preservation Act, consideration should also be given to nominating Fort McNair to the National Register of Historic Places.

The remainder of our comments related to a few ideas or issues presented in the *Installation Design Guide*.

Process

Page 2-5 discusses process or “implementation.” It addresses National Capital Planning Commission Review of projects in some detail. Despite mentioning the National Historic Preservation Act, however, the District of Columbia and Virginia State Historic Preservation Offices are overlooked in relation to Section 106 review. Review under the National Historic Preservation Act is the responsibility of the SHPOs and the Advisory Council on Historic Preservation and not NCPC—although NCPC typically insists that such review is complete before it

formally considers a project. We are satisfied that today's undertakings are being submitted for review in a timely fashion. But we do not wish to leave future stewards of the forts with the impression that they need only approach NCPC, as the consequence is frequently a time delay, with NCPC canceling a hearing because 106 review is not complete. It is worth mentioning as well that the U.S. Commission of Fine Arts reviews projects at Forts McNair and Myer.

With all the direction offered on alterations and repairs to buildings, the document should also somehow address or at least mention that Section 106 review and the Secretary of the Interior's Standards for Rehabilitation also apply to the *interiors* of historic buildings, for the preservation of character-defining features.

Details of alterations and replacements

Historic wall – We are gratified that the *Design Guide* concludes that the boundary wall must remain, not only for its historic value but also as a protective barrier for buildings on both sides and as a screen separating historic buildings from new ones of a much greater size and “monumental” scale. The degree of physical separation between the historic and new portions of the installation may be exaggerated in the assessment, given the number and size of penetrations that have been made in the wall in recent years. In fact, despite the claim that the wall “lacks pedestrian and vehicular access except at only a few locations” (page 5-80), the same could be said for the entire installation. There are several walkways through the wall, and at least as many streets pass through it as traverse the historic campus at intervals at least as frequent.

Windows and doors – The windows guidelines are good. In light of security concerns, they might address the challenges associated with blast-rated windows. The guidelines for door replacements are also valuable and generally follow the same principle as for windows, i.e., that the original should be the standard by which to judge a replacement. Deviation from this may be appropriate in some instances, but one cannot absolutely say, for instance, that the right-hand illustration of “acceptable replacements” on page 8-9 would be acceptable in all cases.

Porches – The addition of porches is discussed on page 8-11. On historic buildings, such alterations are typically more compatible on side and rear elevations that are not prominently visible from a street. Changes to a historic façade ought to be minimal. The addition of major features such as a porch—or the addition of other speculative features—is generally discouraged by the Secretary of the Interior's Standards.

Skyways – Although it is unlikely to come up, the idea for elevated skyways or bridges between buildings is raised on page 8-39. Obviously, such features could only be erected where the buildings are close together—in the northern end of the installation—and might be useful making connections over driveways at some cost. But they would constitute majorly adverse alterations to historic buildings.

Sincerely,



Tim Dennee



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, Maryland 21401
<http://www.fws.gov/chesapeakebay>



December 14, 2011

ENVIRONMENTAL

Department of the Army
Joint Base Myer – Henderson Hall
204 Lee Avenue
Fort Myer, VA 22211-1199

RE: Joint Base Myer Henderson Hall Real Property Master Plan

Dear Carl R. Coffman, Jr.:

This responds to your letter, received November 21, 2011, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened in the above referenced project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Except for occasional transient individuals, no proposed or federally listed endangered or threatened species are known to exist within the project impact area. Therefore, no Biological Assessment or further section 7 consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or should additional information on the distribution of listed or proposed species become available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. Limited information is currently available regarding the distribution of other rare species in the District of Columbia. However, the Nature Conservancy and National Park Service (NPS) have initiated an inventory of rare species within the District. For further information on such rare species, you should contact Tanya Shenk of the National Park Service at (970) 267-2193.

Effective August 8, 2007, under the authority of the Endangered Species Act of 1973, as amended, the U.S. Fish and Wildlife Service (Service) removed (delist) the bald eagle in the lower 48 States of the United States from the Federal List of Endangered and Threatened Wildlife. However, the bald eagle will still be protected by the Bald and Golden Eagle Protection Act, Lacey Act and the Migratory Bird Treaty Act. As a result, starting on August 8, 2007, if your project may cause “disturbance” to the bald eagle, please consult the “National Bald Eagle Management Guidelines” dated May 2007.



If any planned or ongoing activities cannot be conducted in compliance with the National Bald Eagle Management Guidelines (Eagle Management Guidelines), please contact the Chesapeake Bay Ecological Services Field Office at 410-573-4573 for technical assistance. The Eagle Management Guidelines can be found at:

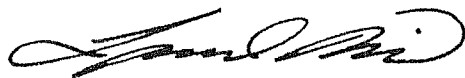
<http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf>.

In the future, if your project can not avoid disturbance to the bald eagle by complying with the Eagle Management Guidelines, you will be able to apply for a permit that authorizes the take of bald and golden eagles under the Bald and Golden Eagle Protection Act, generally where the take to be authorized is associated with otherwise lawful activities. This proposed permit process will not be available until the Service issues a final rule for the issuance of these take permits under the Bald and Golden Eagle Protection Act.

An additional concern of the Service is wetlands protection. Federal and state partners of the Chesapeake Bay Program have adopted an interim goal of no overall net loss of the Basin's remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin's wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if alterations of wetlands is proposed, the U.S. Army Corps of Engineers, Baltimore District, should be contacted for permit requirements. They can be reached at (410) 962-3670.

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interests in these resources. If you have any questions or need further assistance, please contact Devin Ray at (410) 573-4531.

Sincerely,

A handwritten signature in black ink, appearing to read "Leopoldo Miranda", with a stylized flourish at the end.

Leopoldo Miranda
Field Supervisor

APPENDIX B-2:
DRAFT PEA PUBLIC REVIEW

AFFIDAVIT OF PUBLISHER
PURSUANT TO SECTION 8.01-324(B)
OF THE 1950 CODE OF VIRGINIA
AS AMENDED

I, Leslie Barkley, being duly sworn, deposes and says that the attached order of publication was published in the Sun Gazette, a newspaper published in the County of Arlington, State of Virginia, on
July 26, 2012

as requested by: Atkins

and that deponent is a duly authorized agent of the Publisher of said newspaper.

Leslie Barkley
Account Executive

Subscribed and sworn to me this 26th day of July 2012.

County of Loudoun

(SEAL)

Colleen L. Grayson

Notary Public in and for the Commonwealth of Virginia.
My commission expires November 30, 2014.



ACN Papers
19301 Winmeade Dr. - Suite 224
P. O. Box 591
Leesburg, VA 20176
Telephone Numbers:

July 26, 2012

PUBLIC NOTICE OF
DRAFT FINDING OF NO SIGNIFICANT IMPACT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT FOR IMPLEMENTATION OF A REAL
PROPERTY MASTER PLAN AT JOINT BASE MYER HENDERSON HALL

JBM-HH prepared the Programmatic Environmental Assessment (PEA) in accordance with the National Environmental Policy Act (NEPA) 42 United States Code (USC) § 4321 to 4370(e), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (CEQ regulations, 40 CFR Parts 1500 -1508), and Environmental Analysis of Army Actions (32 CFR 651). The U.S. Army announces a 30-day public review and comment period in conjunction with the above mentioned document regarding No Significant Impact PEA for the Real Property Master Plan (RPM) for Joint Base Myer Henderson Hall, including Fort Myer, Arlington, Virginia; Henderson Hall, Arlington, Virginia; Fort McNair, Washington, DC.

1. Description of Proposed Action and Alternatives

Proposed Action. JBM-HH proposes to implement the RPM at Fort Myer, Fort McNair and Henderson Hall through 2030 to provide JBM-HH with a planning framework, tools, and direction to enable the utilization and development of the land within the installations' boundaries in a manner that allows the continued expansion of JBM-HH. All United States Army installations are required to maintain a RPM in accordance with AR-210-20 Real Property Master Planning for Army Installations. The Department of Defense Instruction (DODI) 4715.3 Environmental Conservation Program, and Army Regulation (AR) 200-1, Environmental Enhancement and Protection, require development of the PEA. The PEA identifies existing physical, natural and cultural resources and potential impacts that would occur as a result of the implementation of the RPM. The PEA further establishes mitigation measures and procedures to offset impacts and ensures compliance with all applicable laws and regulations, while ensuring the safety and efficiency of federal and state missions. The proposed Action is the Preferred Alternative.

Alternatives Considered. An environmental analysis of a No Action Alternative is required by CEQ regulations to serve as a benchmark against which the Proposed Action can be evaluated. JBM-HH analyzed a No Action Alternative. The No Action Alternative would continue planning and development based on the current 30-year Master Plans for Fort Myer and Fort McNair and the Henderson Hall Development Plan; however, there would be no comprehensive, cohesive, long-term planning and development that would allow for efficient management of natural and cultural resources and facilities operations and maintenance for JBM-HH.

2. Environmental Analysis

Based upon the analysis contained in the PEA, it has been determined that the known and potential impacts of the Proposed Action on the physical, cultural and natural environment would be minimal for some resources. Impacts to topography, soils, surface water, water quality, vegetation, wildlife, air quality, noise, hazardous materials, solid waste, and utilities are expected as a result of the implementation of the Proposed Action. Air pollutant emissions from future projects should not be significant and would be below de minimus levels for general conformity. Best Management Practices (BMPs) and adherence to applicable policies and regulations would be implemented for resource protection along with mitigation measures identified in the PEA. Neither the Proposed Action nor the No-Action Alternative creates disproportionately high or adverse human health or environmental effects on children, minority or low-income populations, or communities at or surrounding Fort Myer, Henderson Hall and Fort McNair.

3. Regulations

The Proposed Action would not violate NEPA, its regulations promulgated by the CEQ, Environmental Analysis of Army Actions, or any other federal, state, or local environmental regulations.

4. Public Review and Comment

The public comments are welcomed and encouraged on the Army's actions at Joint Base Myer Henderson Hall. The U.S. Army announces a 30-day public review and comment period in conjunction with the above mentioned document regarding No Significant Impact Programmatic Environmental Assessment for the Real Property Master Plan for Joint Base Myer Henderson Hall, including Fort Myer, Arlington, Virginia; Henderson Hall, Arlington, DC. The public comment period runs from July 27, 2012 to August 26, 2012. The public may review the draft Programmatic Environmental Assessment at the following locations:

1. The Joint Base Myer - Henderson Hall Website: <http://www.jbmh.army.mil/WEB/JBMHH/Directorates/PublicWorks.html>
2. Courthouse Plaza Library, 2100 Clarendon Boulevard, 1st Floor, Main Lobby, Arlington, VA 22201
3. Arlington County Public Library, 1015 North Quincy Street, Arlington, VA 22201
4. Martin Luther King, Jr. Public Library, 901 G Street, NW, #400, Washington, D.C. 20001
5. Southwest Neighborhood Library, 900 Wesley Place, SW, Washington D.C. 20024

Written comments from the public should be directed to Directorate of Environmental Management, 111 Stewart Drive, Building 321, Fort Myer, Virginia 22211-1199, ATTN: Ms. Kristie Laire or email comments to: kristie.s.laire.civ@mail.mil

5. Finding of No Significant Impact

Based on the information presented in the Draft PEA, JBM-HH proposes to implement the Preferred Alternative. Once public comments have been addressed and the Draft PEA is made final, if a determination is made that the Proposed Action will have no significant impact, the FONSI will be signed and the action will be implemented. The requirements of NEPA and the CEQ regulations will have been met. An Environmental Impact Statement will not be prepared, and JBM-HH will issue this Finding of No Significant Impact.

Ad # 11535866 Name ATKINS
Class 820 PO#

Authorized by

Size 250 Lines

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Account 2010205212

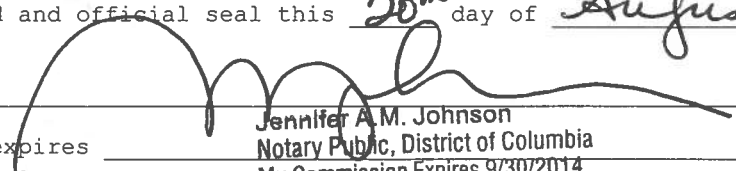
PROOF OF PUBLICATION

District of Columbia, ss., Personally appeared before me, a Notary Public in and for the said District, Alba Cortes well known to me to be BILLING SUPERVISOR of The Washington Post, a daily newspaper published in the City of Washington, District of Columbia, and making oath in due form of law that an advertisement containing the language annexed hereto was published in said newspaper on the dates mentioned in the certificate herein.

I Hereby Certify that the attached advertisement was published in The Washington Post, a daily newspaper, upon the following date(s) at a cost of \$2,930.00 and was circulated in the Washington metropolitan area.

Published 1 time(s). Date(s): 26 of July 2012

Account 2010205212

Witness my hand and official seal this 20th day of August 20 12

My commission expires _____
Jennifer A.M. Johnson
Notary Public, District of Columbia
My Commission Expires 9/30/2014

Joint Base Myer Henderson Hall, Arlington, Virginia and Washington, DC July 26, 2012 PUBLIC NOTICE

OF DRAFT FINDING OF NO SIGNIFICANT IMPACT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT FOR IMPLEMENTATION

OF A REAL PROPERTY MASTER PLAN AT JOINT BASE MYER HENDERSON HALL JBM-HH prepared the Programmatic

Environmental Assessment (PEA) in accordance with the National Environmental Policy Act (NEPA) 42 United States Code (USC) § 4321 to 4370e), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (CEQ regulations, 40 CFR Parts 1500 #1508), and

Environmental Analysis of Army Actions (32 CFR 651). The U.S. Army announces a 30-day public review

and comment period in conjunction with the above mentioned document regarding No Significant Impact

PEA for the Real Property Master Plan (RPMP) for Joint Base Myer Henderson Hall, including Fort Myer, Arlington, Virginia; Henderson Hall, Arlington, Virginia; Fort McNair, Washington, DC. 1. Description of Proposed Action and Alternatives Proposed Action. JBM-HH proposes to implement the

RPMP at Fort Myer, Fort McNair and Henderson Hall through 2030 to provide JBM-HH with a planning framework, tools, and direction to enable the utilization and development of the land within the installations' boundaries in a manner that allows the continued expansion of JBM-HH. All United States Army installations are required to maintain a RPMP in accordance with AR-210-20 Real Property

Master Planning for Army Installations. The Department of Defense Instruction (DODI) 4715.3 Environmental Conservation Program, and Army Regulation (AR) 200-1, Environmental Enhancement and Protection, require development of the PEA. The PEA identifies existing physical, natural and cultural resources and potential impacts that would occur to those resources as a result of the implementation of the RPMP. The PEA further establishes mitigation measures and procedures to offset impacts and ensures compliance with all applicable laws and regulations, while ensuring the

safety and efficiency of federal and state missions. The proposed Action is the Preferred Alternative. Alternatives Considered. An environmental analysis of a No Action Alternative is required by CEQ regulations to serve as a benchmark against which the Proposed Action can be

evaluated. JBM-HH analyzed a No Action Alternative. The No Action Alternative would continue planning and development based on the current 30-year Master Plans for Fort Myer and Fort McNair and the Henderson Hall Development Plan; however, there would be no comprehensive, cohesive, long-term planning and development that would allow for efficient management of natural and cultural resources and facilities operations and maintenance for JBM-HH. 2. Environmental Analysis Based upon the analysis contained in the PEA, it has been determined that the known and potential impacts of the Proposed Action on the physical, cultural and natural environment would be minimal for some resources. Impacts to topography, soils, surface water, water quality, vegetation, wildlife, air quality, noise, hazardous materials, solid waste, and utilities are expected as a result of the implementation of the Proposed Action. Air pollutant emissions from future projects should not be significant and would be below de minimus levels for general conformity. Best Management Practices (BMPs) and adherence to applicable policies and regulations would be implemented for resource protection along with mitigation measures identified in the PEA. Neither the Proposed Action nor the No-Action Alternative creates disproportionately high or adverse human health or environmental effects on children, minority or low-income populations, or communities at or surrounding Fort Myer, Henderson Hall and Fort McNair. 3. Regulations The Proposed Action would not violate NEPA, its regulations promulgated by the CEQ, Environmental Analysis of Army Actions, or any other federal, state, or local environmental regulations. 4. Public Review and Comment The public comments are welcomed and encouraged on the Army's actions at Joint Base Myer Henderson Hall. The U.S. Army announces a 30-day public review and comment period in conjunction with the above mentioned document regarding No Significant Impact Programmatic Environmental Assessment for the Real Property Master Plan for Joint Base Myer Henderson Hall, including Fort Myer, Arlington, Virginia; Henderson Hall, Arlington, Virginia; Fort McNair, Washington, DC. The public comment period runs from July 27, 2012 to August 26, 2012. The public may review the draft Programmatic Environmental Assessment at the following locations: 1. The Joint Base Myer # Henderson Hall Website: <http://www.jbmhh.army.mil/WEB/JBMHH/Directorates/PublicWorks.html> 2. Courthouse Plaza Library, 2100 Clarendon Boulevard, 1st Floor, Main Lobby, Arlington, VA 22201 3. Arlington County Public Library, 1015 North Quincy Street, Arlington, VA 22201 4. Martin Luther King, Jr. Public Library, 901 G Street, NW, #400, Washington, D.C. 20001 5. Southwest Neighborhood Library, 900 Wesley Place, SW, Washington D.C. 20024 Written comments from the public should be directed to Directorate of Environmental Management, 111 Stewart Drive, Building 321, Fort Myer, Virginia 22211-1199, ATTN: Ms. Kristie Lalire or email comments to: kristie.s.lalire.civ@mail.mil 5. Finding of No Significant Impact Based on the information presented in the Draft PEA, JBM-HH proposes to implement the Preferred Alternative. Once public comments have been addressed and the Draft PEA is made final, if a determination is made that the Proposed Action will have no significant impact, the FONSI will be signed and the action will be implemented. The requirements of NEPA and the CEQ regulations will have been met. An Environmental Impact Statement will not be prepared, and JBM-HH will issue this Finding of No Significant Impact.



DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Mr. Robert Spencer, Branch Manager
Columbia Pike Branch, Arlington County Public Library
816 South Walter Reed Drive,
Arlington, Virginia 22201

Dear Mr. Spencer,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. In order to comply with its obligation under the National Environmental Policy Act (NEPA), a Draft Programmatic Environmental Assessment (PEA) has been prepared that evaluates the potential impacts resulting from the implementation of the RPMP. JBM-HH requests that the above referenced PEA be made available to the public for their review. The availability of the document to the public will be announced in the Washington Post on Thursday, July 26, 2012. The document is intended to be accessible to the public at the library, but it is not intended to be circulated. It is requested that the document remain available to the public from July 27 to August 27, 2012.

A copy of the public notice that the draft PEA is now available for review and comment is located at the beginning of the document.

Thank you for your assistance in facilitating the public review and comment process. If you have any questions, please contact Kristie Lalire at kristie.s.lalire.civ@mail.mil or by telephone at 703 696-6770.

Sincerely,

Carl R. Coffman,
Colonel, US Army
Commanding



DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Andrea Akiti, Public Services
Southwest Neighborhood Library
900 Wesley Place, SW
Washington, D.C. 20024

Dear Ms. Akiti,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. In order to comply with its obligation under the National Environmental Policy Act (NEPA), a Draft Programmatic Environmental Assessment (PEA) has been prepared that evaluates the potential impacts resulting from the implementation of the RPMP. JBM-HH is pleased to transmit the above referenced PEA that should be made available to the public for their review. The availability of the document to the public will be announced in the Washington Post on Thursday, July 26, 2012. The document is intended to be accessible to the public at the library, but it is not intended to be circulated. It is requested that the document remain available to the public from July 27 to August 26, 2012.

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Sincerely,

Carl R. Coffman,
Colonel, US Army
Commanding





DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Ms. Audrey Middleton, Public Services
Martin Luther King, Jr. Memorial Library
901 G Street,
Washington, D.C. 20001

Dear Ms. Middleton,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. In order to comply with its obligation under the National Environmental Policy Act (NEPA), a Draft Programmatic Environmental Assessment (PEA) has been prepared that evaluates the potential impacts resulting from the implementation of the RPMP. JBM-HH is pleased to transmit the above referenced PEA that should be made available to the public for their review. The availability of the document to the public will be announced in the Washington Post on Thursday, July 26, 2012. The document is intended to be accessible to the public at the library, but it is not intended to be circulated. It is requested that the document remain available to the public from July 27 to August 26, 2012.

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Sincerely,

Carl R. Coffman,
Colonel, US Army
Commanding





DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Mr. Thomas Luebke
U.S. Commission of Fine Arts
401 F Street NW, Suite 312
Washington, D.C. 20001-2728

Dear Mr. Luebke:

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

In order to comply with its obligation under the National Environmental Policy Act (NEPA), JBM-HH has prepared a Draft Programmatic Environmental Assessment (PEA) to evaluate the potential impacts resulting from the implementation of the RPMP. JBM-HH is pleased to transmit the above referenced PEA for your review and comment. The document is also accessible at the JBM-HH website: <http://www.jbmhh.army.mil>. Please submit your comments on the PEA by 5:00 p.m. on August 26, 2012. Written comments may be submitted to Kristie Lalire at kristie.s.lalire.civ@mail.mil

Thank you for your assistance in this matter. If you have questions, please contact Mrs. Lalire at the email address provided above or by telephone at 703 696-6770.

Sincerely,

Carl R. Coffman,
Colonel, US Army
Commanding



DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Mr. Marcel C. Acosta
National Capital Planning Commission
401 9th Street NW
North Lobby, Suite 500,
Washington, D.C. 20004

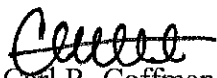
Dear Mr. Acosta:

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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Thank you for your assistance with this matter. If you have any questions, please contact Mrs. Lalire by the email noted above or by telephone at 703 696-6770.

Sincerely,


Carl R. Coffin,
Colonel, US Army
Commanding



DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Mr. Ron Altemus, Branch Manager
Arlington County Public Library
1015 N. Quincy Street,
Arlington, Virginia 22201

Dear Mr. Altemus,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. In order to comply with its obligation under the National Environmental Policy Act (NEPA), a Draft Programmatic Environmental Assessment (PEA) has been prepared that evaluates the potential impacts resulting from the implementation of the RPMP. JBM-HH requests that the above referenced PEA be made available to the public for their review. The availability of the document to the public will be announced in the Washington Post on Thursday, July 26, 2012. The document is intended to be accessible to the public at the library, but it is not intended to be circulated. It is requested that the document remain available to the public from July 27 to August 26, 2012.

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Thank you for your assistance in facilitating the public review and comment process. If you have any questions, please contact Kristie Lalire by email at kristie.s.lalire.civ@mail.mil or by telephone at 703 696-6770.

Sincerely,

Carl R. Coffman,
Colonel, US Army
Commanding



DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Ms. Harriet Tregoning, Director
District of Columbia, Office of Planning
1100 4th Street SW, Suite E605
Washington, D.C. 20024

Dear Ms Tregoning:

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

In order to comply with its obligation under the National Environmental Policy Act (NEPA), JBM-HH has prepared a Draft Programmatic Environmental Assessment (PEA) to evaluate the potential impacts resulting from the implementation of the RPMP. JBM-HH is pleased to transmit the above referenced PEA for your review and comment. The document is also accessible at the JBM-HH website: <http://www.jbmhh.army.mil>. Please submit your comments on the PEA by 5:00 p.m. on August 26, 2012. Written comments may be submitted to Kristie Lalire at kristie.s.lalire.civ@mail.mil.

Thank you for your assistance in this matter. If you have questions, please contact Mrs. Lalire at 703 696-6770.

Sincerely,

Carl R. Coffman,
Colonel, US Army
Commanding



DEPARTMENT OF THE ARMY
JOINT BASE MYER - HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Mr. Christopher Tulou,
District of Columbia Environmental Office
1200 First Street, Fifth Floor,
Washington, D.C. 20002

Dear Mr. Tulou,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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Colonel, US Army
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DEPARTMENT OF THE ARMY
JOINT BASE MYER - HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Mr. William O'Connor III, Director
Arlington County Department of Environmental Services,
2100 Clarendon Boulevard,
Arlington, Virginia 22201

Dear Mr. O'Connor:

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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DEPARTMENT OF THE ARMY
JOINT BASE MYER - HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Mr. Marc Holma,
Virginia Department of Historic Resources,
2801 Kensington Avenue,
Richmond, Virginia 23221

Dear Mr. Holma,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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Sincerely,

Carl R. Coffman,
Colonel, US Army
Commanding



DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Ms. Ellie Irons
Department of Environmental Quality
629 East Main Street, 6th Floor,
Richmond, VA 23219

Dear Ms. Ellie Irons:

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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Sincerely,

Carl R. Coffman,
Colonel, US Army
Commanding





DEPARTMENT OF THE ARMY
JOINT BASE MYER – HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

July 26, 2012

Directorate of Environmental Management

Dr. Mary J. Ratnaswamy,
U.S. Fish and Wildlife Service,
Chesapeake Bay Field Office
177 Admiral Cocharane Drive,
Annapolis, Maryland 21401-7307

Dear Dr. Ratnaswamy,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the Installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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Carl R. Coffman,
Colonel, US Army
Commanding





DEPARTMENT OF THE ARMY
JOINT BASE MYER - HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

August 2, 2012

Directorate of Environmental Management

Mr. Joel Gorder
Regional Planning and Environmental Coordinator
1100 Ohio Drive
Washington, DC 20242

Dear Mr. Gorder,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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Thank you for your assistance in this matter. If you have questions, please contact Mrs. Lalire at the email address provided above or by telephone at 703 696-6770.

Sincerely,

Fern O. Sumpter
Colonel, US Army
Commanding



DEPARTMENT OF THE ARMY
JOINT BASE MYER - HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

August 2, 2012

Directorate of Environmental Management

Mr. Thomas Sheffer
George Washington Parkway Headquarters
700 George Washington Parkway
C/O Turkey Run Park
McLean, VA 22101

Dear Mr. Sheffer,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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Fern O. Sumpter
Colonel, US Army
Commanding



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JOINT BASE MYER - HENDERSON HALL
204 LEE AVENUE
FORT MYER, VIRGINIA 22211-1199

REPLY TO
ATTENTION OF

August 2, 2012

Directorate of Environmental Management

Mr. Daniel Delahaye,
Master Planner, Army National Cemeteries Program
1 Memorial Dr., Administration Building
Arlington, VA 22211-5003

Dear Mr. Delahaye,

Joint Base Myer-Henderson Hall (JBM-HH) comprised of Fort Myer and Henderson Hall, Arlington, Virginia and Fort McNair, Washington, D.C. has developed a Real Property Master Plan (RPMP) to guide the long-range use of land and facilities on the installation. The RPMP presents a flexible plan that would accommodate existing, planned, and future needs of the Installation in a sustainable manner.

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Fern O. Sumpter
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Comment Response Matrix for Draft Programmatic Environmental Assessment (PEA) Joint Base for Implementation of a Real Property Master Plan at Joint Base Myer-Henderson Hall

[November 2012]

Reviewer Name	Organization	Telephone	Address	E-Mail

Thank you for using this form for your comments on the Draft PEA. Please fill in a row above and then enter the page number, line number, your last name, and your comment in the columns noted. This will allow consolidation and sorting all the comments. When you save this file with your comments, please save it by filling in your last name or some other unique identifier within the parenthesis in the file name. To add rows to the table, go to the bottom right-hand cell and hit <Tab>.

Comment #	Page No.	Line No.	Name	Comment	Comment Response
1.			Virginia Department of Historic Resources 13 Aug 12 Letter	1) Recommendation of a Section 106 Programmatic Agreement - for RPMP	Statement about the development of a PA added to the mitigation measures for cultural resources
2.			National Capital Planning Commission	1) Encourages more robust description of proposed projects (lot size, characteristics of location, etc.) and relation to existing and future land use	1) Figure will be added along with additional project information as supplied from the RPMP

Comment #	Page No.	Line No.	Name	Comment	Comment Response
			3 Oct 12 Letter		
3.				2) Encourage avoidance of steeply sloped terrain and poor-load bearing soils	Statement added to not that steep slopes and poor load-bearing soils would be avoided. In mitigation section text added to note that if unavoidable, projects would be reviewed on a case-by-case basis and designed and planned accordingly.
4.				3)For each project submission request documentation on how project meets stormwater management under EISA	Statement added to the mitigation measures section of stormwater discussion to note that stormwater management for developed projects would meet EISA requirements for energy savings, and water conservation to the extent practicable.
5.				4) Encourages use of ideas from the <i>Monumental Core Framework Plan</i> which promotes the development of a marshy riparian edge along the western edge of Fort McNair (within the Washington Channel)	Comment noted. A statement added that Ideas from the Monumental Core Framework Plan which promotes the development of a marshy riparian edge along the western edge of Fort McNair (within the Washington Channel) could be considered in future development at Fort McNair as feasible.
6.				5) For projects at Fort McNair NCPC has a separate responsibility to consider project impacts under Section 106 - as such request U.S. Army initiate Section 106 coordination with DCHPO and NCPC simultaneously and request discussion with NCPC on VA projects with any potential impacts to historic resources	A statement was added to mitigation measures for cultural resources acknowledging that NCPC would be included in Section 106 consultation for Fort McNair and notified of projects in VA
7.				6) Requests correction of reference to District	References were corrected to reflect a

Comment #	Page No.	Line No.	Name	Comment	Comment Response
				Elements of the Comprehensive Plan of the National Capital	discussion of the District Element for the Lower Anacostia/Southwest Element and additional text and description of the Federal Elements were added to the section and analysis reflects consistency with the Federal elements
8.				7) Parking ratio requires further analysis to determine whether NCPC 1:4 ratio can be met and encourages analysis of traffic and congestion, access, and parking	A TMP will be developed as a separate document to support the RPMP. A statement was added to the mitigation measures to note that throughout the time frame of the RPMP, effort would be made to include measures to reduce parking consistent with the Transportation element of the National Capital Comprehensive Plan
9.				8) Requires a TMP as part of the RPMP	A TMP will be developed as a separate document to support the RPMP.
10.				9) FONSI should note the final findings from the environmental analysis as related to transportation	9) FONSI has been revised to add findings from the analysis of transportation in the PEA
11.				10) Requests a discussion of compliance with EO 13514 in utilities section	New construction and required upgrades of utility infrastructure would use energy-efficient materials and components in compliance with EO 13514
12.				11) Encourages continued coordination with ANC and Pentagon	Comment Noted. No Action.
13.			Arlington National Cemetery 10 Sep 12 Email	Notes need for permit for disturbance during the nesting season under the MBTA;	There is no permit for disturbance of migratory birds other than bald eagles during the nesting season; however, permits for bald eagles would be required. Text has been added that addresses the MBTA, Bald and Golden Eagle Protection Act and considerations of migratory birds during activities

Comment #	Page No.	Line No.	Name	Comment	Comment Response
					associated with the RPMP
14.				recommends rewording of a mitigation statement in Cultural Resources section of DPEA	Mitigation section reworded to state that “redevelopment of ...” instead of “development of...”
15.			National Park Service 10 Oct 12 Email	NO COMMENTS	No Action.
16.			VDEQ 13 Sep 12 Agency Compilation Letter containing comments from: Department of Environmental Quality (DEQ); Department of Game and Inland Fisheries (DGIF); Department of Forestry (DOF); Department of Historic Resources (DHR); Department of Health (VDH); Department of Transportation (VDOT); Department of Mines, Minerals, and Energy (DMME); Department of Agriculture and Consumer Services (DACS), Virginia Marine Resources	1) Federal Consistency Determination concurrence received	Text has been revised to include concurrence on consistency

Comment #	Page No.	Line No.	Name	Comment	Comment Response
			Commission (VMRC)		
17.			VDEQ	2) Posted PEA on the DEQ website - No public comments received	Comment Noted. No Action.
18.				Coastal Zone Consistency Comments	
19.			DGIF	1) Fisheries Management: recommendations for mitigation of impacts from projects to tributaries of Four Mile Run and Potomac River; stormwater controls; and adherence to Erosion and Sediment Controls	Text added to include mitigation and avoidance measures recommended by VDGIF
20.			VDEQ	2) Subaqueous Lands Management: Notes requirements for permits for project encroachments in, on or over VA waters	Text within the PEA describes the permit requirements that could be required. No Action
21.			VDEQ	3) Wetlands Management: recommends avoidance of all wetlands or minimize impacts to the extent practicable and provides an overview of permits required	Wetlands would be avoided to the extent practicable. Text within the PEA describes the permit requirements that could be required.
22.			DCR	4) Nonpoint Source Pollution Control: requires compliance with Virginia Erosion and Sediment Control Law and Regulations, Erosion and Sediment Control Plan must be prepared and implemented for projects disturbing greater than or equal to 2,500 sq ft, General Permit for Discharges may be required and Stormwater Pollution Prevention Plan (SWPPP) would be prepared	Text reviewed and amended as necessary to stress the permit requirements and regulatory compliance for nonpoint source pollution control
23.			VDEQ	5) Point Source Pollution Control: DEQ-Northern Regional Office (NRO) requests maintenance of a valid MS4 permit	Text reflects that JBM-HH maintains a valid MS4 permit
24.			DCR-Division of Stormwater Management	6) Coastal Lands Management: notes Arlington County Resource Protection Areas and Resource Management Areas designations. Chesapeake Bay	VDEQ has determined that the Proposed Action (Implementation of the RPMP) would be consistent with the enforceable policies and regulations of the Virginia

Comment #	Page No.	Line No.	Name	Comment	Comment Response
				Preservation areas are not locally designated on federal lands: however, federal agencies' actions are still required to be consistent with enforceable policies of the VA Coastal Management Program. Lands analogous to Fort Myer must be protected from impacts	Coastal Zone Program by avoiding RPAs on Fort Myer and Henderson Hall. Requirements for permitting, stormwater control, etc. are addressed within the applicable sections of the PEA
25.			VDEQ	7) Air Pollution Control: notes requirements for Construction Projects: fugitive dust control, open burning, and fuel burning equipment. Precautions for emission control are also stated	Air pollution mitigation measures expanded to include methods for reducing fugitive dust and open burning control measures
26.			DGIF	Wildlife Resources: notes bald eagle presence in the project area but construction projects would not be within 650 ft of an active nest so no adverse impacts are likely. Request coordination with DGIF and USFWS for construction projects to ensure protection of bald eagles and consultation with DCR's Natural Heritage Division to keep apprised of rare, threatened and endangered species presence and status updates. Time of year restrictions on tree removal and ground clearing should be adhered to (March 15 through Aug 15 of any year)	Time of year restrictions for tree and vegetation removal, coordination with VDGIF and USFWS regarding the status and presence of RTE species including bald eagles, and maintenance of protective buffers and wood lots were added to recommended mitigation measures
27.			DHR	Cultural Resources: notes within the compiled agency review comments that a programmatic agreement is recommended as stated above in comment #1	Statement about the development of a PA added to the mitigation measures for cultural resources
28.			DCR	Natural Heritage Resources: DCR and DACS have a MOA that allows DCR to represent DACS on comments regarding potential impacts to state-listed threatened and endangered insects and plants. No occurrences were found in a database search for JBM-	Text added to reflect that prior to project initiation updated information on the presence and status of RTE species would be acquired

Comment #	Page No.	Line No.	Name	Comment	Comment Response
				HH and no effects are expected by these agencies; however they recommend that an update would be required from DCR Natural Heritage Division database if a significant amount of time occurs before the implementation of a project; they also note there are no Natural Area Preserves in the vicinity	
29.			VDEQ	Solid and Hazardous Waste Management: DEQ database yielded no solid waste sites, voluntary remediation program sites, formerly used defense sites. One CERCLA and three RCRA sites were found; however, only the CERCLA and one RCRA site were located within JBM-HH. The CERCLA site is not listed on the National Priorities List. RCRA information can be accessed on the DEQ website. A petroleum release site list was not created because no specific project information was available. DEQ states that any soil suspected of contamination or wastes must be tested and disposed of in accordance with applicable regulations.	Text of the PEA reflects the commitment of JBM-HH to reducing solid waste, re-use of materials and recycling. Text added noting that the VDEQ database should be searched prior to project initiation.
30.			VDEQ	Asbestos and Lead Containing Materials: checks for asbestos and lead-containing materials should be made prior to demolition of an older structure	Text of the PEA reflects the asbestos and lead paint management programs in place
31.			VDEQ	General recommendation for each project is waste reduction at the source, re-use of materials and recycling of solid wastes as applicable. Hazardous waste use should be minimized	Text of the PEA reflects the commitment of JBM-HH in reducing solid waste, re-use of materials, and recycling.
32.			VDOT	Transportation: (1) states that its interests will be addressed if traffic studies that are conducted include both on-site and off-site roads.	Text on traffic studies added to mitigation measures along with text noting that a TMP is being developed.

Comment #	Page No.	Line No.	Name	Comment	Comment Response
33.			VDOT	(2) further states that internal circulation and access improvements do not appear to constitute any changes to VDOT or Arlington County controlled roads	Comment Noted. No Action.
34.			VDOT	(3) recommends careful coordination and planning for JBM-HH with the expansion of ANC and the Columbia Pike Transit Initiative so there are no negative effects on area roads	Future TMP development noted and text added to cumulative impacts section on the need for coordination and planning between ANC expansion and development at Fort Myer and Henderson Hall
35.			DOF	Forestry Resources: notes some impact to urban tree canopy from implemented projects	Text addresses loss of vegetation with mitigation measures including tree replacement
36.			DMME/VDEQ	Energy Use: DMME had no comments; DEQ offered several suggestions for reducing energy consumption that may be considered in project design and implementation: thermal efficiency components; siting and orientation; high-efficiency heating, ventilation, air conditioning, lighting; day lighting techniques and energy efficient office and data processing equipment	PEA text notes consideration of energy efficiency in design and implementation of projects and construction and renovation projects would be consistent with LID and other sustainability principles and would be consistent with EISA
37.			VDH	Water Supply: VDH had NO COMMENTS; however water conservation tips were included	Text added to note that water conservation measures and devices should be included in new construction and renovation projects
38.			VDEQ	Sewage Treatment: DEQ requires that impacts to sanitary systems be verified by the local utility	Comment noted; no action
39.			DACS	Agricultural Lands; Plants and Insects: DACS had	No action.

Comment #	Page No.	Line No.	Name	Comment	Comment Response
				NO COMMENTS	
40.			VDEQ	Pollution Prevention Recommendations: DEQ encourages use of BMPs, effective siting and planning, to ensure minimization of construction impacts and present pollution prevention recommendations	Text reflects that projects initiated under the RPMP would incorporate BMPs and mitigation measures as outlined in the PEA and as incorporated into programs such as LEED and LID
41.			VRC; Arlington County	Local and Regional Comments: DEQ facilitated local and regional jurisdiction comment review; however, Northern Virginia Regional Commission had NO COMMENTS; Arlington County had NO COMMENTS	No comments. No action.
42.				Regulatory and Coordination Needs: (1) Recommend coordination with USFWS Virginia Field Office and DCR Natural Heritage regarding the protection of the bald eagle	Text reflects that coordination would occur between JBM-HH USFWS and DCR - Natural Heritage program
43.			DHR	(2) recommends contacting the following agencies and organizations at a minimum to determine participation in the development of a PA: Arlington County, Arlington National Cemetery, NPS (at Arlington House), Advisory Council on Historic Preservation and any federally recognized Indian tribe that claims the JBM-HH area as its ancestral home	Comment noted - the development of the PA will be conducted outside of the PEA
44.			VDEQ	Air Pollution Enforceable Policy: JBM-HH project manager should contact DEQ NRO for applicability of permits for fuel-burning equipment and/or open burning and fugitive dust requirements	Text added to note that coordination with VDEQ would occur prior to project initiation to ensure that the appropriate permits are identified and acquired

Comment #	Page No.	Line No.	Name	Comment	Comment Response
45.			VDEQ	Wetlands Management Enforceable Policy: DEQ provides contact information for wetland and surface water permitting	Comment noted - Text of the PEA notes permitting requirements but does not require contact information. NO ACTION
46.			VDEQ	Non-Point Source Pollution Control Enforceable Policy: (1) DEQ provides contact information for preparation of an Erosion and Sedimentation Control Plan at DCR	Comment noted - Text of the PEA notes requirement of an Erosion and Sedimentation Control Plan but does not require contact information. NO ACTION
47.			VDEQ	(2) provides applicable rules for Erosion and Sedimentation Control and Stormwater Management	Applicable regulations were added to the discussion of erosion and sediment control as it pertains to stormwater management
48.			VDEQ	Waste Management Coordination and Applicable Rules: DEQ provides contact information and applicable rules for petroleum release sites, asbestos and lead-based paint disposition and other questions	Comment noted, text reviewed, no action necessary
49.			VDEQ	Pollution Prevention, Transportation Planning, Energy Conservation tips, Sewage Collection and Treatment applicable rules and contact information are provided	Comment noted, text reviewed, no action necessary
50.					
51.					
52.					

End of Comments



IN REPLY, REFER TO:
NCPC File No: 7405

OCT 03 2012

Mrs. Kristie Lalire
Directorate of Environmental Management
Joint Base Myer-Henderson Hall
204 Lee Avenue
Fort Myer, VA 22211-1199

Re: Joint Base Real Property Master Plan, Draft Programmatic Environmental Assessment

Dear Mrs. Lalire:

Thank you for the opportunity to comment on the Draft Programmatic Environmental Assessment (Draft PEA) for the proposed Real Property Master Plan (RPMP) for Joint Base Myer-Henderson Hall (JBM-HH), which comprises both Fort Myer and Henderson Hall in Arlington, Virginia and Fort McNair in Washington, District of Columbia.

The National Capital Planning Commission (NCPC) staff understands that the Programmatic Environmental Assessment (PEA) is being developed in association with the RPMP and that it analyzes broad impacts related to implementation of the RPMP. We understand that it also allows for subsequent environmental analyses or site specific statements when projects within the RPMP are proposed to be constructed. We note that under 40 U.S.C. § 8722(b)(1) and (d) NCPC is required to review proposed projects at Fort Myer and Henderson Hall and review and approve proposed projects at Fort McNair. As such, any necessary subsequent environmental analyses or site specific statements for implementation of proposed projects at these installations should be complete prior to submission of each individual project to NCPC for review/approval. Please see our website, at www.ncpc.gov, for our submission policies and requirements.

NCPC staff provides comments on the following sections within the Draft PEA:

Section 2.0, Description of the Proposed Action and Alternatives

The Draft PEA describes the proposed projects at JBM-HH, however it does not describe the projects in sufficient detail to thoroughly understand even the broad impacts that implementation of the RPMP will have on the environment. NCPC staff encourages the Army to provide within the PEA more robust descriptions of the proposed projects (such as size, lot coverage, specific location characteristics, etc.) as well as better relate this information to the tables for (existing and future) land use acreage and development capacity (existing and proposed gross square feet). Likewise, we encourage the Army to provide more information on how specific projects within the RPMP may change installation populations.

Providing this additional information will allow a better understanding of how implementation of the RPMP impacts the environment under the discussions within section 3, Affected Environment and Environmental Consequences.

Section 3.2, Topography, Soils, and Geology

NCPC staff recognizes the long-time use and existing built nature of the JBM-HH installations, and as such NCPC staff agrees with the Draft PEA that implementation of the RPMP would have limited impacts to soils and topography. We also note that the RPMP has a focus on renovating existing facilities and placing new facilities in areas previously disturbed. To further minimize negative impacts to the environment, we encourage the Army to avoid any new construction in areas with steeply sloped terrain and better identify within the Draft PEA where the referenced steeply sloped terrain (and poor load-bearing soils) are located.

Section 3.3, Water Resources

The Draft PEA states that projects would be initiated only after environmental review has been completed and the required water management permits are obtained. As most projects within the RPMP have the potential to increase impervious surface at the JBM-HH installations, documentation on how each project meets the requirements of stormwater management for federal facilities under Section 438 of the Energy Independence and Security Act should be provided to NCPC with each project submission.

Section 3.4, Biological Resources

NCPC staff encourages the Army to consider ideas from the *Monumental Core Framework Plan*¹ which promote development of a marshy riparian edge along the western edge of Fort McNair (within the Washington Channel). Development of such a marshy area could help mitigate any potential environmental impacts at Fort McNair from construction by improving water quality and wildlife habitat along the Potomac River.

Section 3.5, Cultural Resources

The Draft PEA notes that implementation of projects within the RPMP may require National Historic Preservation Act Section 106 consultation with either the Virginia State Historic Preservation Officer and the District of Columbia Historic Preservation Officer (DCHPO). NCPC staff notes that for projects at Fort McNair where NCPC takes an approval action, NCPC has a separate responsibility to consider the impacts of the project under Section 106. As such, we request that the Army initiate Section 106 coordination for projects at Fort McNair with both NCPC and the DCHPO at the same time. Although NCPC does not have a separate Section 106

¹ The *Monumental Core Framework Plan* was developed by NCPC together with the U.S. Commission of Fine Arts as a comprehensive guide to planning for the areas surrounding the National Mall. The plan was adopted by the CFA on March 19, 2009, and received approval from the NCPC on April 2, 2009. The plan is available through NCPC's web site at www.ncpc.gov.

responsibility to consult on JMB-HH projects in Virginia, we request that JBM-HH discuss with NCPC any potential project impacts to historic resources at the earliest time possible.

Section 3.7, Land Use

Note that there are two components to the *Comprehensive Plan of the National Capital*—the Federal Elements and the District Elements. The National Capital Planning Commission develops the Federal Elements and the District of Columbia government develops the District Elements. The text under section 3.7.3.2 is from the District Elements; but the source is cited as “NCPC 2006.” This is incorrect; the Council of the District of Columbia adopts the District Elements.

The Federal Elements of the Comprehensive Plan provides policies to help guide federal development within the National Capital Region. These policies are based three guiding principles: (1) accommodating federal and national capital activities; (2) reinforcing smarter, more coordinated growth; and (3) supporting coordination with local and regional governments. In addition to the District Elements, the PEA should evaluate implementation of the RPMP against the policies contained within the Federal Elements.

Section 3.9, Transportation

In regards to Fort Myer and Henderson Hall the Draft PEA notes a parking ratio for suburban areas beyond 2,000 feet of a Metrorail station (“targeted ratio of 1 employee parking space per 1.5 employees”). NCPC staff notes that for federal installations within the Historic District of Columbia Boundaries, which includes Fort Myer and Henderson Hall as well as Fort McNair, NCPC’s recommended parking ratio is 1 employee parking space per 4 employees.²

The PEA should have further analyses as to whether NCPC’s recommended parking ratio of 1 employee parking space per 4 employees can be met at all JBM-HH installations with the implementation of the RPMP. The PEA should also analyze further the environmental impacts associated with meeting or not meeting this ratio at these installations. Specifically, NCPC staff encourages the Army to analyze:

- Traffic and congestion, measured by the number of trips expected to be generated by the proposed development and the impact on levels of service of nearby intersections;
- Access, including an analysis of all entrances to the installations and the adjacent roadways for their ability to accommodate current and anticipated levels of traffic; and
- Parking (including a break down between proposed employee parking and other parking including visitor, fleet, etc.).

² See the Transportation Element within the Federal Elements of the *Comprehensive Plan for the National Capital*, available through NCPC’s web site at www.ncpc.gov.

In addition, as part of the RPMP master plan submission to NCPC, the Army will also be required to submit a Transportation Management Plan (TMP). The TMP should include implementation plans with timetables outlying the Army's commitment to reaching the goals contained within TMP. The TMP should evaluate compressed and variable work schedules, telework options, as well as alternative commuting options such as ridesharing, biking, walking, and other non-single-occupant vehicle modes of transportation.

NCPC staff also notes that the draft Finding of No Significant Impact (FONSI) does not reference any determination of potential impacts from transportation. The FONSI should note the final findings from the environmental analysis as they relate to transportation issues.

Section 3.10, Utilities

The PEA should note that Executive Order 13514 requires all federal to "identify and analyze impacts from energy usage and alternative energy sources in all Environmental Impact Statements and Environmental Assessments for proposals for new or expanded Federal Facilities." All subsequent environmental analyses or site specific statements that are to be completed when JBM-HH projects within the RPMP are planned should contain this information. A discussion of compliance with Executive Order 13514 should also be provided to NCPC with any project submission for review.

Coordination

Given the adjacency of Fort Myer and Henderson Hall to the Arlington National Cemetery and the Pentagon Reservation, NCPC staff encourages the Army to continue coordination with the master planning efforts for these facilities (especially with concern to transportation issues including the Transportation Management Plans associated with the master plans).

NCPC also encourages the Army to reach out to the adjacent Arlington and District of Columbia neighborhoods with information about the master planning process for JBM-HH installations.

Thank you again for the opportunity to comment on the Draft PEA, we look forward to our continued coordination on the development of the RPMP and review of individual projects at JBM-HH installations. If you have any questions regarding our comments or our submission requirements, please contact Jeff Hinkle of my staff at (202) 482-7265 or jeff.hinkle@ncpc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Christine Saum".

Christine Saum, AIA
Director, Chief Urban Designer, Urban Design and Plan Review

Gomez, Elizabeth

From: Peet, Alexandra C <Alexandra.Peet@atkinsglobal.com>
Sent: Friday, August 10, 2012 4:13 PM
To: Koenekke, Mary-Alice
Subject: FW: Master Plan for Ft. McNair (UNCLASSIFIED)
Attachments: HOFFMAN-MADISON WATERFRONT ANNOUNCES PASSAGE OF SOUTHWEST WATERFRONT REDEVELOPMENT BILL.webarchive

MA,

Here is the comment. The attached is from the commenter.

Alexandra Peet, AICP, LEED AP
Senior Planner, Planning + Design

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200 Daingerfield Road, Alexandria, Virginia, 22314 | Tel: +1 (703) 535 3008 ext. 4202120 | Fax: +1 (703) 535 1031 |
Cell: +1 (202) 487 8322 | Email: Alexandra.Peet@atkinsglobal.com | Web: www.atkinsglobal.com/northamerica www.atkinsglobal.com

From: Bill shickler [mailto:mediawatchonhunger@yahoo.com]
Sent: Thursday, August 09, 2012 12:33 PM
To: Peet, Alexandra C
Cc: mediawatchonhunger@yahoo.com
Subject: RE: Master Plan for Ft. McNair (UNCLASSIFIED)

I'm trying to download the entire plan. Making copies and finding a machine to be able to e-mail the material is not feasible at this time. The plan contains a lot of material pertinent to the upcoming battle over turning Southwest into another Atlantic City. Thanks for your help. I will be in touch. Bill Shickler 202-484-4148

--- On **Wed, 8/8/12**, Peet, Alexandra C <Alexandra.Peet@atkinsglobal.com> wrote:

From: Peet, Alexandra C <Alexandra.Peet@atkinsglobal.com>
Subject: RE: Master Plan for Ft. McNair (UNCLASSIFIED)
To: "Mediawatchonhunger@yahoo.com" <Mediawatchonhunger@yahoo.com>
Cc: "Bowen, Myrtle CIV (US)" <myrtle.bowen.civ@mail.mil>
Date: Wednesday, August 8, 2012, 4:39 PM

Bill,

Only the FONSI is available on the website. The EA is available in the libraries only. What are you trying to download?

<http://www.jbmhh.army.mil/WEB/JBMHH/Directorates/PublicWorks.html>

Alexandra Peet, AICP, LEED AP

ATKINS

200 Daingerfield Road, Alexandria, Virginia, 22314 | Tel: +1 (703) 535 3008 ext. 4202120 | Fax: +1 (703) 535 1031 |

Cell: +1 (202) 487 8322 | Email: Alexandra.Peet@atkinsglobal.com | Web: www.atkinsglobal.com/northamerica www.atkinsglobal.com

From: Bowen, Myrtle CIV (US) [<mailto:myrtle.bowen.civ@mail.mil>]
Sent: Wednesday, August 08, 2012 3:59 PM
To: Peet, Alexandra C
Cc: Mediawatchonhunger@yahoo.com
Subject: FW: Master Plan for Ft. McNair (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Ali, please advise!

Thanks

From: Bill shickler [<mailto:mediawatchonhunger@yahoo.com>]
Sent: Wednesday, August 08, 2012 3:52 PM
To: Bowen, Myrtle CIV (US)
Subject: RE: Master Plan for Ft. McNair (UNCLASSIFIED)

Ms. Brown- These files are downloading, BUT Not Opening. I get a message about unlocking a keychain, which I did, but the file still won't open. Please advise. I need this information. Thanks! Bill Shickler
--- On **Wed, 8/8/12, Bowen, Myrtle CIV (US)** <myrtle.bowen.civ@mail.mil> wrote:

From: Bowen, Myrtle CIV (US) <myrtle.bowen.civ@mail.mil>
Subject: RE: Master Plan for Ft. McNair (UNCLASSIFIED)
To: "Peet, Alexandra C" <Alexandra.Peet@atkinsglobal.com>
Cc: "Lalire, Kristie S CIV (US)" <kristie.s.lalire.civ@mail.mil>, "Mediawatchonhunger@yahoo.com" <Mediawatchonhunger@yahoo.com>
Date: Wednesday, August 8, 2012, 2:02 PM

Classification: UNCLASSIFIED

Caveats: NONE

Ms. Ali Peet,

Thank you for your assistance!

V/r,

SUPPORT AND DEFEND!

Ms. Myrtle Bowen

Chief, Master Planning Division

Joint Base Myer-Henderson Hall

204 Lee Ave, Bldg 305

Fort Myer, VA 22211

Phone: 703-696-0637

Cell: 703-994-7701

DSN: 426

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From: Peet, Alexandra C [<mailto:Alexandra.Peet@atkinsglobal.com>]

Sent: Wednesday, August 08, 2012 1:53 PM

To: Mediawatchonhunger@yahoo.com

Cc: Lalire, Kristie S CIV (US); Bowen, Myrtle CIV (US)

Subject: RE: Master Plan for Ft. McNair (UNCLASSIFIED)

Mr. Shickler,

Regarding our conversation today, the information below should provide you with the information you are looking for regarding your concerns with the development proposed in the vicinity of your neighborhood.

Regarding the comment on page 44:

This section (section 3.3.8 below) references Executive Order (EO) 11988. The description, intent and summary of requirements for this EO can be found on the FEMA website below:

<http://www.fema.gov/environmental-planning-and-historic-preservation-program/executive-order-11988-floodplain-management>

3.3.8 Floodplains

EO 11988, *Floodplain Management*, directs all federal agencies to avoid both long- and short-term adverse effects associated with occupancy, modification, and development in the 100-year floodplain, when possible. In the EO, floodplains are defined as “the lowland and relatively flat areas joining inland and coastal waters including flood prone areas of offshore islands, including a minimum, that area subject to a one percent greater chance of flooding in any given year.”

Fort McNair

Fort McNair is at an elevation of 10 ft msl, and because the Federal Emergency Management Agency (FEMA) has determined that flood elevations are at the 11-ft elevation, FEMA has recommended that the 10-ft contour be used to define the 100-year storm at Fort McNair, which reduces the acreage of the floodplain at Fort McNair from 22.5 to 11.7 acres (DEM-JBM-HH 2011). There are also areas of shallow flooding in the 500-year floodplain (USACE 2003). The 100-year floodplain and areas of shallow flooding are presented on Figure 11. The extensive presence of the floodplain and the low-lying topography of Fort McNair act as a constraint to development.

Regarding the comment on page 121:

For projects within the vicinity of Fort McNair, I included the sources for the information below. For references to the Washington, D.C. 2006 Revised Comprehensive Plan Chapter 19, the Southwest Waterfront Plan, the Anacostia Waterfront Initiative, the National Capital Framework Plan, and the South Capitol Gateway and Improvement Study, go to the DC Office of Planning website: <http://planning.dc.gov/DC/Planning/>. I am sure you can get updates on the current status of these plans and projects there or through the sources listed below.

Location Number	Name	Description
1	Southwest Waterfront Redevelopment	The \$1.1 billion Southwest Waterfront Redevelopment includes 767 housing units

	(Hoofman-Streuver LLC) Source http://www.bizjournals.com/washington/breaking_ground/2012/07/southwest-waterfront-project-to.html	(231 affordable), 400,000 ft ² office space, 280,000 ft ² of retail, 476,000 ft ² hotel space, and 150,000 ft ² of cultural space including the National Maritime Heritage Museum and new Fish Market. \$200 million in public financing provides funds for parks, piers, infrastructure, and bike paths. This project is expected to bring 2,880 new jobs and 100 new businesses.
2	Waterfront Mixed Use	Waterfront includes 1.1 million ft ² of office space, 800,000 ft ² of residential, 400,000 ft ² of residential or office, and over of 110,000 ft ² of retail space on the former site of the Waterside Mall. South Street SW will be re-opened. First phase is currently under construction.
3	100 V St Washington DC, SW	Akridge, a local real estate company, purchased a 9-acre site next to Fort McNair consisting of two parking lots from the Potomac Electric Power Company. This site has potential for a 2.7 million ft ² development and is available on a build to suit opportunity.
4	Marine Place	This planned residential and retail property would include 4,800 ft ² of retail space and 89 residential units located at 95 V Street in Buzzard Point.
5	Florida Rock	This proposed mixed-use retail, office, and hotel project is located south of Nationals Ball Park and adjacent to the Frederick Douglass Memorial Bridge. This project is planned for 85,000 ft ² of retail, 470,000 ft ² of office space, and 1,027,000 ft ² of mixed-use space.
6	Nationals Stadium	The Washington Nationals 41,000-seat stadium opened in the spring of 2008, acting as a catalyst for development in the area, and attracting people from the entire region to the southeast waterfront.
7	Half Street Source http://www.halfstreet.com/news/detail/1	Monument Realty, is developing a 1.9 million ft ² mixed-use neighborhood called Half Street next to the Washington Nationals new stadium. The first phase includes 250,000 ft ² of office space, 50,000 ft ² of retail space, 300 residential units, and a 200-room boutique hotel.
8	U.S. DOT Headquarters	This new 11-acre, 1.35 million-ft ² headquarters for the U.S. Department of Transportation houses 7,000 workers and is directly adjacent to the Southeast Federal

		Center.
9	Southeast Federal Center	This 42-acre mixed-use project broke ground in late 2007 and will consist of 1.8 million ft ² of office space, 2,800 residential units, 160,000 to 350,000 ft ² of retail space, and a 5.87-acre waterfront park, all to be phased in over the next 10 to 20 years.
	Source http://www.jdland.com/dc/dot.cfm	

Please let me know if you need additional information or have additional questions.

Thanks,

Alexandra Peet, AICP, LEED AP

Senior Planner, Planning + Design

ATKINS

200 Daingerfield Road, Alexandria, Virginia, 22314 | Tel: +1 (703) 535 3008 ext. 4202120 | Fax: +1 (703) 535 1031 |

Cell: +1 (202) 487 8322 | Email: Alexandra.Peet@atkinsglobal.com | Web: www.atkinsglobal.com/northamerica www.atkinsglobal.com

From: Bill shickler [<mailto:mediawatchonhunger@yahoo.com>]

Sent: Tuesday, August 07, 2012 3:20 PM

To: Lalire, Kristie S CIV (US)

Cc: mediawatchonhunger@yahoo.com

Subject: Master Plan for Ft. McNair

Ms. Lalire., I live two blocks from Ft. McNair, and I read with great interest what several adverse impacts there would be by helter skelter development along Maine Ave., near Ft. McNair. You don't have that full master plan at this web address. It will be very helpful for me to be able to send relevant sections of that report to legal counsel and other residents of Southwest DC. Could you please inform me as to where I can locate the entire Master Plan online. Page 44 talks about NOT allowing building in the 100 year floodplain, where we are located. Page 121 projects a \$200 Million need for public funds for infrastructure building. All of this so we can have 7 TIMES the traffic we presently have. Insane!! Thanks for your help.

Bill Shickler - 202-484-4148

Mediawatchonhunger@yahoo.com

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Caveats: NONE

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Caveats: NONE

Gomez, Elizabeth

From: Peet, Alexandra C <Alexandra.Peet@atkinsglobal.com>
Sent: Monday, September 10, 2012 12:03 PM
To: Koeneker, Mary-Alice
Subject: Fwd: ANCP Review of Draft JBM-HH PEA (UNCLASSIFIED)

Sent from my iPhone

Begin forwarded message:

From: "Lalire, Kristie S CIV (US)" <kristie.s.lalire.civ@mail.mil>
Date: September 10, 2012 7:35:44 AM EDT
To: "Peet, Alexandra C" <Alexandra.Peet@atkinsglobal.com>
Cc: "Bowen, Myrtle CIV (US)" <myrtle.bowen.civ@mail.mil>
Subject: FW: ANCP Review of Draft JBM-HH PEA (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Ali,

See ANC comments with respect to JBM-HH PEA below. The comment concerning National Register listed and eligible buildings is appropriate.

And with respect to Marc Holma's comment about a Section 106 PA for the Master Plan, I've discussed it with the VA SHPO and Marc has agreed to a stand-alone document (PA) rather than incorporate it into the Master Plan. The idea is to finish the master plan, rather than have it delayed by another process. Thank you for the Belvoir information which was useful in discussing the process with the VA SHPO.

Thanks, Kristie

-----Original Message-----

From: Delahaye, Daniel B CIV (US)
Sent: Friday, September 07, 2012 2:25 PM
To: Lalire, Kristie S CIV (US)
Cc: Bowen, Myrtle CIV (US)
Subject: ANCP Review of Draft JBM-HH PEA (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Ms Lalire,

In response to and consideration of the JBM-HH request for ANCP review and

comment upon the Draft JBM-HH Master Plan Programmatic Environmental Assessment, the following is offered:

Section 3.4.3 Wildlife Resources, Page 52, Line 1391: The Migratory Bird Act does not allow disturbance during nesting season without a permit.

Section 3.8.2 Mitigation Measures, Page 82, Lines 2327-2330: Unclear statement. Recommend rewording to clarify what is meant by "development of National Register eligible buildings".

I wish you well with your efforts to conclude the NEPA process. Please feel free to contact me with any questions or concerns you may have.

V/r,

Daniel Delahaye
Master Planner, Army National Cemeteries Program
1 Memorial Dr., AD Bldg.
Arlington, VA 22211-5003

703-614-4306 (DSN 224)
daniel.b.delahaye.civ@mail.mil

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Classification: UNCLASSIFIED
Caveats: NONE

Kristie,

Thank you for bringing this to my attention.

Daniel,

Your request for extension is granted. However, if you can complete and submit your response before then it would be greatly appreciated.

V/r,

SUPPORT AND DEFEND!

Ms. Myrtle Bowen
Chief, Master Planning Division
Joint Base Myer-Henderson Hall
204 Lee Ave, Bldg 305
Fort Myer, VA 22211
Phone: 703-696-0637
Cell: 703-994-7701
DSN: 426

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-----Original Message-----

From: Lalire, Kristie S CIV (US)
Sent: Thursday, August 23, 2012 9:25 AM
To: Delahaye, Daniel B CIV (US)
Cc: Bowen, Myrtle CIV (US); Kaczmarek, Ronald E CIV (US); Khalamayzer, Michael V CIV (US)
Subject: RE: ANCP Review of Draft JBM-HH PEA -- Extension Requested (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thank you for your email notification, I am forwarding to Master Planning for their record.

Best wishes, Kristie

-----Original Message-----

From: Delahaye, Daniel B CIV (US)
Sent: Thursday, August 23, 2012 9:21 AM
To: Lalire, Kristie S CIV (US)
Subject: ANCP Review of Draft JBM-HH PEA -- Extension Requested (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Ms Lalire,

Per our previous discussion, I respectfully request an extension of ANCP comment upon the JBM-HH and Fort McNair Master Plan Draft Programmatic Environmental Assessment to 8 September.

Any assistance with this matter would be greatly appreciated.

V/r,

Daniel Delahaye
Master Planner, Army National Cemeteries Program
1 Memorial Dr., AD Bldg.
Arlington, VA 22211-5003

703-614-4306 (DSN 224)
daniel.b.delahaye.civ@mail.mil

Classification: UNCLASSIFIED
Caveats: NONE

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Caveats: NONE

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Caveats: NONE

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Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

September 13, 2012

Ms. Kristie Lalire
Directorate of Environmental Management
Department of the Army
Joint Base Myer-Henderson Hall
204 Lee Avenue
Fort Myer, Virginia 22211

RE: Draft Programmatic Environmental Assessment and Federal Consistency
Determination for the Joint Base Real Property Master Plan for Joint Base Myer-
Henderson Hall (DEQ-12-143F)

Dear Ms. Lalire:

The Commonwealth of Virginia has completed its review of the above-referenced Draft Programmatic Environmental Assessment (Draft PEA), which includes a federal consistency determination (FCD) in Appendix A. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of federal environmental documents and responding to appropriate federal officials on behalf of the Commonwealth. The following agencies joined in this review:

- Department of Environmental Quality
- Department of Game and Inland Fisheries
- Department of Conservation and Recreation
- Department of Health
- Department of Transportation
- Department of Historic Resources
- Department of Mines, Minerals, and Energy
- Department of Forestry
- Department of Agriculture and Consumer Services

In addition, the following agencies, regional planning district commission, and locality were invited to comment:

Virginia Marine Resources Commission
Northern Virginia Regional Commission
Arlington County.

DESCRIPTION OF ACTION

The Department of the Army has submitted a draft Programmatic Environmental Assessment (PEA) for the implementation of a Real Property Management Plan (RPMP) at Joint Base Fort Myer-Henderson Hall (JBM-HH) in Arlington County and at Fort McNair in Washington, D.C. The RPMP provides JBM-HH with a planning framework, tools, and direction to enable the utilization and development of the land within the installations' boundaries through 2030 in a manner that allows the continued expansion of JBM-HH. The PEA identifies existing physical, natural, and cultural resources and potential impacts that would occur to these resources as a result of the implementation of the RPMP. The PEA further establishes mitigation measures and procedures to offset impacts and ensures compliance with all applicable laws and regulations, while ensuring the safety and efficiency of federal and state missions. Specific projects are not addressed in the RPMP or in the PEA. However, locations and development types are identified. Future Area Development Plans and the Installation Design Guide would address specific details about the layout, size, and character of future development. The PEA includes a Federal Consistency Determination (FCD) which presents the Army's determination that the proposed action is consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program.

In this response to the PEA, we address only JBM-HH and do not address Fort McNair.

FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT PLAN

Pursuant to the Coastal Zone Management Act of 1972, as amended, federal activities located inside or outside of Virginia's designated coastal management area that can have reasonably foreseeable effects on coastal resources or coastal uses must be implemented in a manner consistent, to the maximum extent practicable, with the Virginia Coastal Zone Management Program (VCP) (see section 307(c)(1) of the federal Coastal Zone Management Act, as amended, and its implementing regulations at Title 15, *Code of Federal Regulations* (CFR), Part 930, Sub-part C (sections 930.30 through 930.46). The VCP consists of a network of programs administered by several state agencies. In order to be consistent with the VCP, proposed activities must be consistent with the enforceable policies of the VCP, and all the applicable permits and approvals listed under the enforceable policies of the VCP must be obtained prior to commencing the activities. DEQ coordinates the review of FCDs with agencies administering the enforceable and advisory policies of the VCP.

Public Participation

In accordance with 15 CFR §930.2, a public notice of this proposed action was published on the DEQ website from August 14, 2012 to September 4, 2012. No public comments were received in response to the notice.

Federal Consistency Concurrence

Based on our review of the federal consistency determination (FCD) and the comments submitted by agencies administering the applicable enforceable policies of the VCP, DEQ concurs with the Army that the proposed action is consistent, to the maximum extent practicable, with the VCP, provided that any applicable permits and approvals are obtained as described below. However, other state approvals which may apply to project implementation are not included in this consistency concurrence. Therefore, the Army must ensure that the project is implemented in accordance with all applicable federal, state, and local laws and regulations.

Analysis of Enforceable Policies

The state agencies responsible for the administration of the enforceable policies of the VCP that may apply to the proposed project generally agree with the Army's findings that the proposed event will not affect enforceable policies of the VCP (FCD, pages 1-4). The Army must ensure that the construction of the project is consistent with the enforceable policies of the VCP.

The analysis which follows responds to the discussion in the federal consistency determination of the enforceable policies of the VCP that apply, or may apply, to the proposed action.

1. Fisheries Management. The FCD indicates that JBM-HH is located approximately 2 miles west of the Potomac River. An unnamed tributary runs along the southwestern boundary of Fort Myer and Henderson Hall, and drains to the Potomac River via Ling Branch Creek, which also drains Henderson Hall property. Long Branch Creek is a tributary of Four Mile Run, which enters the Potomac River. The Army states that the proposed action would have no foreseeable impacts on fish or shellfish resources, and would not affect the promotion of commercial or recreational fisheries. (PEA, Appendix A, page 6, "Fisheries" heading).

1(a) Agency Jurisdiction. The Department of Game and Inland Fisheries (DGIF), pursuant to Virginia Code Title 29.1 §§ 29.1-100 through 29.1-577, and the Virginia Marine Resources Commission (VMRC), pursuant to Virginia Code §28.2-200 through §28.2-713, administer the fisheries management enforceable policy of the VCP. The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities.

1(b) Agency Comments and Recommendations: Anadromous Fish Use Areas.

According to DGIF, Four Mile Run and the Potomac River have been designated Anadromous Fish Use Areas. DGIF presents a number of recommendations to mitigate impacts of projects undertaken to implement the RPMP:

- Any in-stream work in Four Mile Run or the Potomac River or their tributaries should adhere to a time-of-year restriction from February 15 through June 30 of any year.
- The Army should conduct any in-stream activities during low-flow or no-flow conditions.
- In-stream activities should use non-erodible cofferdams or turbidity curtains to isolate the construction area, blocking no more than 50% of the stream flow at any given time.
- Excavated material should be stockpiled in a manner that prevents its re-entry into the stream.
- Original streambeds and streambank contours should be restored.
- Barren areas should be re-vegetated with native vegetation.
- The Army should implement strict erosion and sediment control measures (see item 4(b), below).

In addition, because of future maintenance costs associated with culverts, and the loss of riparian and aquatic habitat, DGIF prefers that stream crossings be constructed via clear-span bridges. If this is not possible, then culverts should be countersunk below the stream bed at least 6 inches; or bottomless culverts to allow passage of aquatic organisms should be used. DGIF also recommends the installation of floodplain culverts to carry bankfull discharges.

Stormwater Controls. DGIF recommends that stormwater controls for projects undertaken under the RPMP be designed to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bio-retention areas and minimizing the use of curb and gutter in favor of grassed swales. Bio-retention areas (also called rain gardens) and grassed swales are components of Low-Impact Development (LID). They are designed to capture stormwater runoff as close to the source as possible, and allow it to slowly infiltrate into the surrounding soil. Rain gardens benefit natural resources by filtering pollutants and decreasing downstream runoff volumes.

Erosion and Sediment Controls. DGIF recommends adhering to all necessary erosion and sediment controls during ground disturbance. See also item 4(b), below.

1(c) Virginia Marine Resources Commission. The Commission did not respond to our request for comments.

1(d) Conclusion. Assuming that the Army adheres to necessary erosion and sediment controls during ground disturbance associated with the RPMP, DGIF finds the RPMP consistent with the fisheries management enforceable policy of the Virginia Coastal Zone

Management Program (VCP). VMRC did not object to the Army's determination that the RPMP would be implemented consistently, to the maximum extent practicable, with the VCP.

2. Subaqueous Lands Management. The FCD indicates that implementation of the RPMP would not affect subaqueous lands (PEA, Appendix A, page 7, "Subaqueous Lands Management" heading).

2(a) Agency Jurisdiction. The Virginia Marine Resources Commission (VMRC), pursuant to Virginia Code sections 28-2-1200 *et seq.*, has jurisdiction over any encroachments in, on, or over the beds of the bays, ocean, rivers, streams, or creeks which are the property of the Commonwealth. VMRC must receive an application, process a permit, and issue the permit for any activities encroaching on or over, or taking use of materials from the beds of the bays, ocean, rivers, streams, and/or creeks which are the property of the Commonwealth.

The VMRC serves as the clearinghouse for the Joint Permit Application used by the:

- U.S. Army Corps of Engineers (Corps) for issuing permits pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act;
- DEQ for issuance of a Virginia Water Protection (VWP) permit;
- VMRC for encroachments on or over state-owned subaqueous beds as well as tidal wetlands; and
- The appropriate local wetlands board for impacts to wetlands.

2(b) Agency Comments. The Virginia Marine Resources Commission did not respond to our request for comments.

2(c) Conclusion. The Virginia Marine Resources Commission did not object to the Army's determination that implementation of the RPMP would not affect subaqueous lands (PEA, Appendix A, page 7, "Subaqueous Lands Management" heading).

3. Wetlands Management. According to the FCD, approximately 1.15 acres of wetlands were identified in three separate areas on Fort Myer, and are contained in two designated Resource Protection Areas (RPAs; see item 6, below) associated with unnamed tributaries. The largest area is a palustrine forested wetland of approximately 1.05 acres, located within the floodplain of an intermittent stream in the southwest corner of Fort Myer. The remaining wetlands are east of McNair Road on Fort Myer, and together comprise approximately 0.1 acre. There are no wetlands within Henderson Hall. Wetlands (RPAs) are constraints upon potential development. The RPMP defines developable land based on constraints, including wetlands and designated RPAs; projects implemented under the RPMP will avoid impacts to these areas to the extent practicable. (PEA, Appendix A, page 7, "Tidal and Non-Tidal Wetlands" heading).

3(a) Agency Jurisdiction. The State Water Control Board promulgates Virginia's water quality regulations, covering a variety of permits, including the Virginia Pollutant Discharge Elimination System (VPDES) Permit, Virginia Pollution Abatement (VPA) Permit, Surface and Groundwater Withdrawal Permit, and the Virginia Water Protection (VWP) Permit.

The VWPP is a state permit which governs wetlands, surface water and surface water withdrawals and/or impoundments. It also serves as § 401 certification of federal Clean Water Act § 404 permits for dredge and fill activities in waters of the United States. The VWPP program is under the Office of Wetlands and Stream Protection (OWSP) within the DEQ Division of Water Quality Programs. The six DEQ regional offices perform permit application reviews and issue permits for the covered activities.

3(b) Agency Comments. DEQ recommends that for any project undertaken pursuant to the RPMP, the project manager should avoid surface water or wetlands impacts, or minimize unavoidable impacts to the best of his or her ability.

3(c) Virginia Water Protection Permit. In the event of a project giving rise to impacts upon wetlands or surface waters subject to regulation by the VWPP program, then the Army must obtain, and comply with, all necessary permits to make the project consistent with the wetlands management enforceable policy of the VCP. The VWPP program is mandated by Virginia Code sections 62.1-44.15:20 and 62.1-44.15:21 and implementing regulations at 9 VAC 25-210 *et seq.* See "Regulatory and Coordination Needs," item 4, below.

3(d) Conclusion. DEQ-NRO did not object to the Army's finding that the proposed implementation of the RPMP would be consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program (PEA, Appendix A, page 9, "Summary of Findings" heading).

4. Non-point Source Pollution Control. According to the FCD, land-disturbing activities during construction and demolition would require a Virginia Stormwater Management Program (VSMP) Permit and a Stormwater Pollution Prevention Plan (SWPPP). The Army would continue to adhere to erosion and sediment control and stormwater management requirements (see items 4(b) and 4(c), below). The FCD commits the Army to appropriate Best Management Practices and proper implementation of erosion and sediment control features (PEA, Appendix A, page 8, "Non-point Source Water Pollution Control" heading).

4(a) Agency Jurisdiction. The mission of the Department of Conservation and Recreation (DCR) is to conserve Virginia's natural and recreational resources. DCR supports a variety of environmental programs organized within seven divisions, including the Division of Stormwater Management. DCR's Division of Stormwater Management (DCR-DSM) administers the non-point source enforceable policy of the VCP which is governed by the Virginia Erosion and Sediment Control Law and Regulations [References: Virginia Code §10.1-563; *Virginia Erosion and Sediment*

Control Regulations 4 VAC 50-30-30, 4 VAC 50-30-40] and the Virginia Stormwater Management Law and Regulations. [Reference: Virginia Code §10.1-603.3; Virginia Stormwater Management (VSMP) Permit Regulations, 4 VAC 50-60-110.]

4(b) Erosion and Sediment Control. The Army and its authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R); the Virginia Stormwater Management Law and Regulations, including coverage under the general permit for stormwater discharge from construction activities; and other applicable federal non-point source pollution mandates (e.g., Clean Water Act, section 313, federal consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbing activities that result in the disturbance of an area greater than or equal to 2,500 square feet of land are regulated by VESCL&R. Accordingly, the Army must prepare and implement an erosion and sediment control (ESC) plan to ensure compliance with state law and regulations. The ESC plan is to be submitted to the DCR's Warrenton Regional Office (the Office which serves the area where the project is located) for compliance review (see "Regulatory and Coordination Needs, item 5, below). The Army is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL, Virginia Code section 10.1-567.]

4(c) General Permit for Discharges of Stormwater from Construction Activities. The operator or owner of construction activities involving land-disturbing activities equal to or greater than one acre (2,500 square feet in Chesapeake Bay Preservation Areas) is required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific stormwater pollution prevention plan (SWPPP). Construction activities requiring registration also include the disturbance of less than one acre of land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb an area greater than or equal to one acre. The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit. It must address water quality and quantity in accordance with the *Virginia Stormwater Management Program (VSMP) Permit Regulations*. General information and registration forms for the General Permit are available on DCR's website at http://www.dcr.virginia.gov/stormwater_management/vsmp.shtml. [Reference: Virginia Stormwater Management Law, Virginia Code sections 10.1-603.1 *et seq.*; *VSMP Permit Regulations*, 4 VAC 50 *et seq.*]

4(d) Conclusion. DCR did not object to the Army's finding that the proposed implementation of the RPMP would be consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program (PEA, Appendix A, page 9, "Summary of Findings" heading).

5. Point Source Pollution Control. According to the FCD, wastewater systems are owned by the installations (i.e., JBM-HH). As future projects are proposed under the RPMP, the Army would work with DEQ to revise permits as necessary, and would adhere to permit conditions. Stormwater discharged through conveyances such as separate storm sewers, ditches, channels, or other mechanisms are considered point sources and subject to regulation through the NPDES permit program. JBM-HH's Municipal Separate Storm Sewer (MS4) permit requires contractors to comply with the Installation's permit before initiating construction or demolition activities, and it requires submission of an erosion and sediment control plan when one acre or more of ground is to be disturbed (see also item 4(b), above). (PEA, Appendix A, page 9, "Point Source Pollution Control" heading.)

5(a) Agency Jurisdiction. The State Water Control Board promulgates Virginia's water regulations, covering a variety of permits. These include the Virginia Pollutant Discharge Elimination System Permit, Virginia Pollution Abatement Permit, Surface and Groundwater Withdrawal Permit, and the VWP Permit. DEQ issues individual VPDES permits to both municipal and industrial facilities. Permit requirements, special conditions, effluent limitations, and monitoring requirements are determined for each facility on a site-specific basis in order to meet applicable water quality standards. General permits are written for a class of discharges including petroleum-contaminated sites and hydrostatic tests (*Regulations*, 9 VAC 25-120). DEQ Regional Offices, including the Northern Regional Office, perform permit application reviews and issue permits for covered activities.

5(b) Agency Comments. DEQ's Northern Regional Office (DEQ-NRO) indicates that the Army should maintain a valid Municipal Separate Storm Sewer System (MS4) permit to protect water quality in nearby streams and wetlands.

DEQ-NRO acknowledges the statement in the PEA that specific projects undertaken under the RPMP should be initiated only after environmental review has been completed and required permits obtained (PEA, Appendix A, page 9, "Point Source Pollution Control" heading).

5(c) Conclusion. DEQ-NRO did not object to the Army's finding that the proposed implementation of the RPMP would be consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program (PEA, Appendix A, page 9, "Summary of Findings" heading).

6. Coastal Lands Management. According to the FCD, Fort Myer and Henderson Hall are located in a Chesapeake Bay Preservation Area. Two Resource Protection Areas (RPAs) are delineated and associated with segments of perennial streams and wetlands, and are recognized as constraints on development. Implementation of projects under the RPMP would include best management practices to comply with the Chesapeake Bay Resource Management Area (RMA) requirements (PEA, Appendix A, page 9, "Chesapeake Bay Preservation Areas" heading).

6(a) Agency Jurisdiction. The Department of Conservation and Recreation's Division of Stormwater Management –Local Implementation (DCR-DSM-LI) (previously called the Division of Chesapeake Bay Local Assistance) is responsible for administering the state's responsibilities under the Chesapeake Bay Preservation Act (Virginia Code sections 10.1-2100 *et seq.* ("Bay Act") and the *Chesapeake Bay Preservation Area Designation and Management Regulations* (9 VAC 10-20-10 *et seq.*).

6(b) Definitions. In Arlington County, the areas protected by the Bay Act, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas and Resource Management Areas as designated by the local government. RPAs include tidal wetlands, certain non-tidal wetlands, and tidal shores. RPAs also include a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. All areas of the County not included in the RPA are designated as RMAs.

6(c) Requirements. While Chesapeake Bay Preservation Areas (CBPA) are not locally designated on federal lands, this does not relieve federal agencies of their responsibility to be consistent with the provisions of the *Chesapeake Bay Preservation Area Designation and Management Regulations* as one of the enforceable policies of the Virginia Coastal Zone Management Program. Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the *Regulations* on lands analogous to locally designated CBPAs. Projects that include land-disturbing activity must adhere to the general performance criteria, especially with respect to minimizing land disturbance (including access and staging areas), retaining indigenous vegetation, and minimizing impervious cover. For land disturbance greater than or equal to 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992 (see also item 4(b), above). Additionally, stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations*, 4 VAC 50-60-10, must be satisfied.

6(d) Chesapeake Ecosystem Unified Plan. The 1998 *Federal Agencies' Chesapeake Ecosystem Unified Plan* (Plan) calls for the signatories of that Plan to cooperate with local and state governments in carrying out actions to comply with stormwater management regulations. The Plan further encourages low-impact development practices that minimize the loss of natural areas and reduce impervious surfaces on federal facilities, as well as other best management practices to address stormwater management, and sediment and erosion control.

6(e) Chesapeake 2000 Agreement. In addition, the *Chesapeake 2000 Agreement* committed federal government agencies to sound land use and stormwater quality controls. The signatories additionally committed their agencies to lead by example with respect to controlling nutrient, sediment, and chemical contaminant runoff from government properties. In December 2001, the Executive Council of the Chesapeake Bay Program issued *Directive No. 01-1: Managing Storm Water on State, Federal and*

District-owned Lands and Facilities, which includes specific commitments for agencies to lead by example with respect to stormwater control.

6(f) Analysis; Conclusion. As indicated in the PEA (page 45, section 3.3.9), there are lands analogous to CBPAs at Fort Myer. The Army indicates that for Alternative 2, the Preferred Alternative, development "...would avoid RPAs on Fort Myer and Henderson Hall; however, if encroachment into an RPA was found to be unavoidable, permits would be required" (PEA, page 47, section 3.3.11.2). According to DCR's Division of Stormwater Management-Local Implementation, the proposed development activities associated with the Real Property Master Plan for Fort Myer and Henderson Hall must avoid impacts to lands analogous to RPAs in order to be consistent with the Regulations.

7. Air Pollution Control. According to the FCD, the Army does not anticipate that a full General Conformity Determination would be required because construction, demolition, and renovation activities would proceed over a 20-year period. The Army would undertake measures to minimize air quality impacts, including but not limited to limitations on activity on code orange, red, and purple ozone days, use of low-sulfur fuels, and implementation of anti-idling devices on vehicles and equipment (PEA, Appendix 2, pages 7-8, "Air Quality" heading.)

7(a) Agency Jurisdiction. DEQ is charged with carrying out mandates of the state law and related regulations as well as Virginia's federal obligations under the Clean Air Act, as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. DEQ's Division of Air Program Coordination and its Regional Offices ensure the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. DEQ's Northern Regional Office (DEQ-NRO) is directly responsible for the issuance of necessary permits to construct and operate all stationary sources in northern Virginia, as well as monitoring emissions from these sources for compliance.

7(b) Agency Findings. Arlington County is in an ozone non-attainment and emission control area for oxides of nitrogen (NO_x) and volatile organic compounds (VOC).

7(c) Requirements for Construction Projects.

(i) Fugitive Dust Control

During construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 *et seq.* of the *Regulations for the Control and Abatement of Air Pollution*. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;

- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

(ii) Open Burning

If project activities include the open burning or use of special incineration devices for the disposal of demolition material, this activity must meet the requirements of 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100 of the *Regulations* for open burning, and it may require a permit. The *Regulations* provide for, but do not require, the local adoption of a model ordinance concerning open burning. Norfolk and Portsmouth officials should be contacted to determine what local requirements, if any, exist.

(iii) Fuel-Burning Equipment

In the event that any projects pursuant to the RPMP involve fuel-burning equipment (boilers, compressors, generators, etc.) or any other air pollution emitting equipment, the projects in question may be subject to 9 VAC 5-80, Article 6, "Permits for New and Modified Sources" of the *Regulations*. In such case, the project manager should contact DEQ's Northern Regional Office (see "Regulatory and Coordination Needs," item 3, below).

7(d) Agency Comments; Conclusion. All precautions are necessary to restrict emissions of VOCs and NOx. Provided the requirements listed above are followed, the project is consistent with the Air Pollution Control enforceable policy of the Virginia Coastal Zone Management Program.

ADDITIONAL ENVIRONMENTAL CONSIDERATIONS

1. Wildlife Resources. According to the Army, there are no known wildlife species federally listed as threatened or endangered at Fort Myer or Henderson Hall (PEA, page 52, section 3.4.3, "Threatened and Endangered Species" heading). Wildlife species in the vicinity of construction would be disturbed by additional noise and human presence associated with construction, demolition, and renovation activities, as well as losing habitat from tree removal as contemplated under Alternative 1 (PEA, page 52, section 3.4.3.1.1.). Alternative 2, the Preferred Alternative, would give rise to additional disturbance and habitat loss or alteration due to a wider range of projects over a longer time frame (PEA, page 52, section 3.4.3.1.2).

1(a) Agency Jurisdiction. The Department of Game and Inland Fisheries (DGIF), as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state-

or federally-listed endangered or threatened species, but excluding listed insects (Virginia Code Title 29.1).

1(b) Agency Comments and Recommendations: Bald Eagles. According to DGIF records, bald eagles, listed by the State as a threatened species, have been documented in the project area. Neither of the nests documented is within 660 feet of the boundaries of Fort Myer and Henderson Hall. Therefore, DGIF has determined that construction projects undertaken within the current joint boundaries are not likely to result in adverse impacts upon bald eagles.

However, to ensure the protection of bald eagles, DGIF recommends that any construction project be coordinated with itself and with the U.S. Fish and Wildlife Service (USFWS), so that these two agencies may provide protective recommendations in case that a bald eagle nest is constructed on the base boundaries or within 660 feet thereof. Similarly, because project sites occur within two miles of documented occurrences of a natural heritage species (the bald eagle), the Army should also consult with the Department of Conservation and Recreation's Division of Natural Heritage (DCR-DNH). See "Regulatory and Coordination Needs," item 1, below.

Minimizing Construction Impacts on Wildlife and Natural Resources. To minimize overall impacts to wildlife and natural resources from development projects undertaken pursuant to the RPMP, DGIF has a number of recommendations. Avoidance and minimization of impacts may include relocating stream channels as opposed to filling or channelizing, as well as using – and incorporating into the development plan – a natural stream channel design and wooded buffers. More specifically, DGIF recommends:

- Maintaining undisturbed, naturally vegetated buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams;
- Maintaining wooded lots to the fullest extent possible.

DGIF generally does not support proposals to mitigate wetland impacts through construction of stormwater management ponds. Similarly, DGIF does not support the creation of in-stream stormwater management ponds. DGIF is willing to assist the Army in developing a plan that includes open space, wildlife habitat, and natural stream channels which retain their wooded buffers; see "Regulatory and Coordination Needs," item 1, below.

Time-of-year Restrictions. All tree removal and ground clearing activities should adhere to a time-of-year restriction protective of resident and migratory songbird nesting, from March 15 through August 15 of any year.

1(c) Additional Information. The Department of Game and Inland Fisheries (DGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not

documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or the Army may contact the Department (Gladys Cason, telephone (804) 367-0909).

2. Historic Structures and Archaeological Resources. The Army lists a number of archaeological and architectural resources at Fort Myer and Henderson Hall (PEA, pages 55-56, sections 3.5.1 and 3.5.2), and indicates that assessment of adverse effects on cultural resources depends on the exact location of future projects, and the specific design details. The RPMP intends to preserve and enhance historic structures, including the historic viewsheds from within and outside JBM-HH. The Army would determine impacts of projects once their design process has begun, and consult with the Virginia State Historic Preservation Office (SHPO), which is the Department of Historic Resources (PEA, page 57, section 3.5.3).

2(a) Agency Jurisdiction. The Department of Historic Resources (DHR) conducts reviews of projects to determine their effect on historic structures or cultural resources under its jurisdiction. DHR, as the designated State's Historic Preservation Office, ensures that federal actions comply with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR Part 800. The Act requires federal agencies to consider the effects of federal projects on properties that are listed on or eligible for listing on the National Register of Historic Places. Section 106 also applies if there are any federal involvements, such as licenses, permits, approvals or funding.

2(b) Agency Comments and Recommendations: Programmatic Agreement. The Army (specifically JBM-HH) has begun consulting with the Department of Historic Resources (DHR) regarding the RPMP. As DHR has indicated in its August 13, 2012 letter to Colonel Coffman, the Army is aware that JBM-HH contains a National Historic Landmark historic district, and abuts Arlington National Cemetery, two very significant historic properties. DHR is working with Fort Belvoir to develop a Programmatic Agreement (PA) for its Real Property Management Plan, and recommends that JBM-HH do the same. This is because the effects to historic properties from the implementation of the RPMP cannot be fully determined at this time. The PA can serve not only to fulfill the Army's responsibility to consider impacts to historic properties resulting from RPMP implementation at JBM-HH, but may also include processes that will streamline consultation with DHR on the implementation of the plan.

To begin PA development, DHR recommends that the Army identify agencies and organizations that may wish to participate as consulting parties. See "Regulatory and Coordination Needs," item 2, below.

3. Natural Heritage Resources. The PEA addresses threatened and endangered species in its discussion of wildlife resources (pages 51-53, section 3.4.3).

3(a) Agency Jurisdictions: Department of Conservation and Recreation. The mission of the Department of Conservation and Recreation's Division of Natural Heritage is conserving Virginia's biodiversity through inventory, protection, and

stewardship. The Virginia Natural Area Preserves Act, Virginia Code sections 10.1-209 through 10.1-217, codifies DCR's powers and duties related to statewide biological inventory: maintaining a statewide database for conservation planning and project review, land protection for the conservation of biodiversity, and the protection and ecological management of natural heritage resources.

"Natural heritage resources" are defined as the habitat of rare, threatened, and endangered species, unique or exemplary natural communities, and significant geologic formations.

3(b) Agency Jurisdictions: Department of Agriculture and Consumer Services.

The Endangered Plant and Insect Species Act of 1979, Chapter 39, §3.1-102- through 1030 of the *Code of Virginia*, as amended, authorizes the Virginia Department of Agriculture and Consumer Services (VDACS) to conserve, protect and manage endangered species of plants and insects. VDACS Virginia Endangered Plant and Insect Species Program personnel cooperate with the U.S. Fish and Wildlife Service, DCR-DNH and other agencies and organizations on the recovery, protection or conservation of listed threatened or endangered species and designated plant and insect species that are rare throughout their worldwide ranges.

3(c) Shared Responsibility. Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species.

3(d) Natural Heritage Resources Findings. DCR has searched its Biotics Data system for occurrences of natural heritage resources on JBM-HH property. Biotics documents the presence of such resources; however, due to the scope of the projects that might be implemented under the RPMP and the distance to the resources, DCR does not anticipate that any projects will affect natural heritage resources.

In keeping with the shared responsibility mentioned above (item 3(c)), DCR-DNH indicates that implementation of the RPMP will not affect any documented state-listed plants or insects.

3(e) Additional Information. New and updated information is continually added to Biotics. Please contact DCR (Rene' Hypes, telephone (804) 371-2708) for an update on this natural heritage information if a significant amount of time passes before it is utilized.

3(f) Natural Area Preserves. According to DCR, there are no state Natural Area Preserves in the vicinity of JBM-HH.

4. Solid and Hazardous Waste Management. The Army indicates that under Alternative 2, best management practices (BMPs) for conservation of energy, water,

and reduction of solid waste could reduce energy requirements for projects under the RPMP. The BMPs could include training on eligible materials for recycling of municipal solid waste, providing adequate recycling containers, and mandatory incorporation of recycling requirements for construction demolition debris into all contracts for outside construction, renovation, and demolition contractors (PEA, page 103, section 3.10.7.2).

4(a) Agency Jurisdiction. Solid and hazardous wastes in Virginia are regulated by the Virginia Department of Environmental Quality, the Virginia Waste Management Board, and the U.S. Environmental Protection Agency. These entities administer programs created by the federal Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, commonly called Superfund), and the Virginia Waste Management Act. DEQ administers regulations established by the Waste Management Board and reviews permit applications for completeness and conformance with facility standards and financial assurance requirements. All Virginia localities are required, under the *Solid Waste Management Planning Regulations*, to identify the strategies they will follow on the management of their solid wastes to include items such as facility siting, long-term (20-year) use, and alternative programs such as materials recycling and composting.

4(b) Agency Findings. Solid and hazardous waste issues were generally addressed in the PEA, according to DEQ's Division of Land Protection and Revitalization (DEQ-DLPR). DEQ-DLPR conducted a cursory search of its waste databases and found the following results through the Virginia Geographical Information Systems (VEGIS) database. These results reflect a presence within the 22211 zip code or 500 feet of a project site.

4(b)(i) Solid Waste Sites. None identified.

4(b)(ii) Voluntary Remediation Program (VRP) Sites. None identified.

4(b)(iii) Petroleum Release Sites. Multiple petroleum contamination (PC) events were identified on JBM-HH (status: all closed), but a listing of these events was not prepared by DEQ staff because no specific project site is identified in the PEA. See item 4(c), below.

4(b)(iv) Formerly Used Defense Sites (FUDS). None identified.

4(b)(v) Comprehensive Environmental Response, Compensation, and Liability Act/Federal Facilities Restoration Program (CERCLA/FFR) Sites. One was identified:

- VA8210020626 – Fort Myer, 204 Lee Avenue, Fort Myer, VA 22211. Status: Not on the National Priorities List (NPL).

4(b)(vi) Resource Conservation and Recovery Act/Hazardous Waste (RCRA/HW) Sites. Three sites were identified in zip code 22211:

- VA8210020626 – Department of the Army HQ, Joint Base Myer-Henderson Hall, Lee Avenue, Fort Myer, VA 22211. Contact: James Stratton at 703-696-2013.
- VAR000000786 – DOD Federal Office Bldg #2, Columbia Pike & Old Ridge, Arlington, VA 22211. Contact: Stephen P. Best at 703-692-4114.
- VA6210020032 – U.S. Arlington National Cemetery, Arlington, VA 22211. Contact: Joseph Bunton at 703-697-4915.

4(c) Recommendations for Additional Information.

4(c)(i) DEQ's Geographical Information Information Systems (VEGIS) Database.

DEQ's VEGIS database can be accessed at the following web address:

<http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS.aspx>. Through VEGIS's search options, one can identify, by address or zip code, the Solid Waste sites, VRP sites, and Petroleum Release sites in the area of the proposed project.

4(c)(ii) Petroleum Release Sites. As indicated above (item 4(b)(iii)), a listing of sites was not prepared because no specific project site is defined in the PEA. DEQ's petroleum contamination (PC) case files with the PC Case Numbers., within a defined radius of proposed project(s), can be identified; and these petroleum releases should be evaluated by the project engineer or manager to establish the exact location of the release and the nature and extent of the petroleum release and its potential impact on the proposed project. The facility representative should contact the DEQ's Northern Virginia Regional Office (Tanks Program) for further information and the administrative records of the PC cases which are in close proximity to any proposed projects. See "Regulatory and Coordination Needs," item 7(a), below.

4(c)(iii) Resource Conservation and Recovery Act/Hazardous Waste (RCRA/HW) Sites. The report author or project engineer should access this information on the DEQ website at

<http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/ReportsPublications/OriginalReports.aspx>, and clicking on the Hazardous Waste Facilities link. Search by zip code 22211.

4(d) General Comments. Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. See "Regulatory and Coordination Needs," item 7(b), below, for a partial listing of legal citations.

4(d)(i) Asbestos-Containing Materials and Lead Based Paint. If an older structure will be demolished as part of this project, the structure should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP). If they are found, in addition to the federal waste-related regulations mentioned above, State regulations 9 VAC 20-80-640 for ACM and 9 VAC 20-60-261 for LBP must be followed. See "Regulatory and Coordination Needs," items 7(a) and 7(b).

4(e) Recommendation. DEQ recommends that for every project undertaken under the RPMP, project managers reduce wastes at the source, re-use materials, and recycle solid wastes. Hazardous wastes should be minimized.

5. Transportation. The PEA addresses transportation matters (pages 83-98, sections 3.9 through 3.9.4). Impacts and mitigation for Alternatives 1 (no action) and 2 (Preferred Alternative) are discussed as part of this subject area (pages 96-97, sections 3.9.3 through 3.9.4). The document also addresses transportation plans and projects in and around Fort Myer and Henderson Hall (pages 93-95, section 3.9.2) and makes reference to VDOT plans (page 95, section 3.9.2.1.).

5(a) Agency Jurisdiction. The Virginia Department of Transportation (VDOT) is responsible for building, maintaining, and operating the state's roads, bridges, and tunnels. The mission of the Department is to plan, deliver, operate, and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy, and improves Virginians' quality of life. (VDOT web site.)

5(b) Agency Comments: Land Development. According to VDOT, the RPMP contemplates approximately 1,000,000 square feet of new development at Fort Myer, and the PEA indicates that traffic studies will be required to ascertain the impacts of the new development on the transportation network. Because the RPMP is a long-range concept plan, it seems logical that the details of road widening and turn lanes that may be required are not yet available. According to VDOT, its interests will be addressed if the traffic studies include both on-site and off-site roads.

5(c) Agency Comments: Traffic Engineering. VDOT states that the transportation items within the PEA pertain to internal circulation and access improvements. These do not appear likely to constitute any changes to VDOT- or Arlington County-controlled roadways.

5(d) Agency Recommendation. VDOT recommends careful coordination and planning for JBM-HH, along with that for the proposed expansion of Arlington Cemetery and the Columbia Pike Transit Initiative, so that the proposed activities do not negatively affect area roads. See "Regulatory and Coordination Needs," item 9, below.

6. Forest Resources. The Army indicates that Alternative 1, the no-action alternative, would disturb vegetation in area of new construction, road widening, and road realignment. Temporarily disturbed areas would be re-planted, new developments would be landscaped, and native plant species used where appropriate. Alternative 2, the preferred alternative, would result in a larger vegetation loss, temporary or permanent, and new developments would be landscaped as in Alternative 1. Under Alternative 2, the Army would preserve existing open space at Fort Myer and Henderson Hall. Recreation fields and improved pedestrian networks would add to open space. (PEA, page 49, sections 3.4.1.1.1. and 3.4.1.1.2.)

6(a) Agency Jurisdiction. The mission of the Virginia Department of Forestry (DOF) is to protect and develop healthy, sustainable forest resources for Virginians. DOF was established in 1914 to prevent and suppress forest fires and re-forest bare lands. Since the Department's inception, it has grown and evolved to encompass other protection and management duties, including: protecting Virginia's forests from wildfire, protecting Virginia's waters, managing and conserving Virginia's forests, managing state-owned lands and nurseries, and managing regulated incentive programs for forest landowners.

6(b) Agency Comments. According to DOF, it appears that construction activities will give rise to some impact on the urban tree canopy on JBM-HH.

7. Energy Use. According to the PEA, the heating system at Fort Myer and Henderson Hall is powered by natural gas, although the plant switches to fuel oil in winter months as requested by Washington Gas, the local utility, which maintains the distribution system (PEA, pages 101-102, sections 3.10.4. and 3.10.5.). Public distribution systems are adequate, according to the document, to address anticipated future needs under either Alternative 1 (no action) or Alternative 2 (preferred) (PEA, page 103, section 3.10.7.).

7(a) Agency Jurisdiction. The mission of the Department of Mines, Minerals, and Energy's Division of Energy is to advance sustainable energy practices by increasing the use of proven energy conservation practices; identifying applications of new and innovative energy technologies; advancing partnerships to enable energy efficiency; improving energy efficiency of commercial, institutional, and residential buildings; and providing energy education and outreach (DMME web site).

7(b) Agency Comments. The Department of Mines, Minerals, and Energy has no comments on the RPMP.

7(c) Energy Conservation Tips for New Projects. DEQ offers several tips to enhance the energy efficiency of new facilities which may be constructed pursuant to the RPMP. For example, the Army may want to consider the following:

- thermally-efficient building shell components (roof, wall, floor, windows, and insulation);
- facility siting and orientation with consideration towards natural lighting and solar loads
- high-efficiency heating, ventilation, air conditioning systems;
- high-efficiency lighting systems and daylighting techniques; and
- energy-efficient office and data processing equipment.

See "Regulatory and Coordination Needs," item 10, below.

8. Water Supply. According to the PEA, Fort Myer receives potable water from the Arlington County water system, which obtains its water from the Potomac River. The

water is treated at the Dalecarlia Water Treatment Plant by the Washington Aqueduct Division, an agency of the Army Corps of Engineers, Baltimore District. Fort Myer and Henderson Hall use about 0.33 million gallons per day, and peak use is in June (15 million gallons per month). Arlington County is upgrading its water treatment facility to a capacity of 40 million gallons per day (MGD) compared with the present 30 MGD. (PEA, pages 98-99, section 3.10.1.).

8(a) Agency Jurisdiction. The Virginia Department of Health (VDH), Office of Drinking Water (ODW) reviews projects for the potential to impact public drinking water sources (groundwater wells and surface water intakes).

8(b) Agency Comments. The Department of Health has no comments on the RPMP.

8(c) Water Conservation Tips for New Projects. The following recommendations will result in reduced water use associated with the operation of new facilities contemplated under the RPMP.

- Grounds should be landscaped with hardy native plant species to conserve water as well as lessen the need to use fertilizers and pesticides.
- Convert turf to low water-use landscaping such as drought resistant grass, plants, shrubs and trees.
- Low-flow toilets should be installed in new facilities. Otherwise, offset older toilets with a plastic jug of pebbles and water to minimize the amount of water used in flushing.
- Consider installing flow restrictors and aerators on faucets.
- Improve irrigation practices by:
 - upgrading sprinkler clock; water at night, if possible, to reduce evapo-transpiration (lawns need only 1 inch of water per week, and do not need to be watered daily; overwatering causes 85% of turf problems);
 - installing a rain shutoff device; and
 - collecting rainwater with a rain bucket or cistern system with drip lines.
- Check for and repair leaks (toilets and faucets) during regular routine maintenance activities.

9. Sewage Treatment. According to the PEA, sewage treatment for Fort Myer is accomplished at Arlington County's Four Mile Run Water Treatment Control Plant. As with Arlington's water treatment plant, the water treatment plant is being upgraded from 30 MGD to 40 MGD. The sewage flow is approximately 0.33 MGD a day, with peak usage in June. (PEA, pages 99-100, section 3.10.2.).

9(a) Discharging Sewer System Regulations. DEQ has approval authority for most discharging sewage collection systems and treatment works, except for single-family home (less than 1,000 gallon per day) systems. This authority is contained in the *Sewage Collection and Treatment (SCAT) Regulations* (9 VAC 25-790 *et. seq.*). Additional information is available on the DEQ website at www.deq.virginia.gov/Programs/Water/WastewaterAssistanceTraining/WastewaterEngineering/Regulations.a

spx. Construction of sanitary wastewater collection systems must comply with the state's sewerage regulations.

(b) Requirements. Potential impacts to sanitary sewage collection systems must be verified by the local utility, according to VDH. See "Regulatory and Coordination Needs," item 10, below.

10. Agricultural Lands; Plant and Insect Species. The PEA addresses land uses at Fort Myer and Henderson Hall, and does not indicate that any agricultural lands are present on either installation (pages 68-70, section 3.7.1.). According to the PEA, anticipated developments under either Alternative 1 or Alternative 2 would disturb vegetation in areas where new construction is to be undertaken. Restoration or enhancement of vegetation would be beneficial (PEA, page 49, sections 3.4.1.1.1. and 3.4.1.1.2.).

10(a) Agency Jurisdiction. The 2001 Virginia General Assembly established the Office of Farmland Preservation within Virginia Department of Agriculture and Consumer Services (VDACS) to help reduce the loss of agricultural land. Also, see items 3(b) and 3(c), above.

10(b) Agency Comments. The Department of Agriculture and Consumer Services did not respond to our request for comments.

11. Pollution Prevention Recommendations. DEQ encourages all project proponents to implement pollution prevention principles in undertaking construction projects and managing facilities. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source. Accordingly, we present several pollution prevention recommendations that may be helpful in constructing or operating projects undertaken pursuant to the RPMP:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that the proposed facility is committed to minimizing its environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and it recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitment to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.

- Choose sustainable materials and practices for infrastructure and building construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.
- Integrate pollution prevention techniques into the facility maintenance and operation. Maintenance facilities should be designed with sufficient and suitable space to allow for effective inventory control and preventative maintenance.

See "Regulatory and Coordination Needs," item 8, below.

12. Regional and Local Comments.

12(a) Jurisdiction. In accordance with Virginia Code section 15.2-4207, planning district commissions encourage and facilitate local government cooperation and state-local cooperation in addressing, on a regional basis, problems of greater than local significance. The cooperation resulting from this is intended to facilitate the recognition and analysis of regional opportunities and take account of regional influences in planning and implementing public policies and services. Planning district commissions promote the orderly and efficient development of the physical, social, and economic elements of the districts by planning, and encouraging and assisting localities to plan, for the future.

12(b) Regional Comments. The Northern Virginia Regional Commission did not respond to our request for comments.

12(c) Local Comments. Arlington County did not respond to our request for comments.

REGULATORY AND COORDINATION NEEDS

1. Wildlife Resources.

1(a) Coordination. As indicated above ("Additional Environmental Considerations," item 1(b)), the Department of Game and Inland Fisheries recommends that the Army consult with the following regarding protection of the bald eagle:

- the Department itself (begin with Amy Ewing, telephone (804) 367-2211 or e-mail amy.ewing@dgif.virginia.gov);
- the U.S. Fish and Wildlife Service's Virginia Field Office (begin with Cindy Schultz, the Supervisor, telephone (804) 693-6694); and
- the Department of Conservation and Recreation's Division of Natural Heritage (Rene' Hypes, telephone (804) 371-2708).

1(b) Applicable Rules. The protection of the bald eagle is mandated by the Virginia Endangered Species Act, Virginia Code sections 29.1-563 through 29.1-570.

2. Historic Resources: Programmatic Agreement. The Department of Historic Resources recommends that the Army include the following agencies and organizations, at a minimum, in determining participation in the development of a Programmatic Agreement for JBM-HH:

- Arlington County
- Arlington National Cemetery
- National Park Service (at Arlington House)
- Advisory Council on Historic Preservation; and
- Any federally recognized Indian tribe that claims the JBM-HH area of Virginia as its historic home.

Pursuant to section 106 of the National Historic Preservation Act, as amended, and its implementing regulations at 36 CFR Part 800, the Army is requested to continue consultation with DHR (Marc Holma, telephone (804) 462-6090).

3. Air Pollution Control Enforceable Policy.

3(a) Coordination. To determine the applicability of permits required for fuel-burning equipment, and/or to inquire about open burning and fugitive dust control requirements, the JBM-HH project manager should contact DEQ's Northern Regional Office (Mr. Terry Darton, Air Permits Manager, telephone (703) 583-3845 or terry.darton@deq.virginia.gov).

3(b) Applicable Rules. As indicated above, applicable provisions of the *Regulations for the Control and Abatement of Air Pollution* include, but are not limited to:

Fugitive dust control:	9 VAC 5-50-60
Open burning:	9 VAC 5-130-10 through 5-130-60 and 5-130-100
Fuel-burning equipment:	9 VAC 5-50, Article 6.

4. Wetlands Management Enforceable Policy.

4(a) Coordination. Inquiries about permitting of surface water and wetland impacts of projects contemplated under the RPMP may be directed to DEQ's Northern Regional Office (Bryant Thomas, telephone (703) 583-3843).

4(b) Applicable Rules. The Virginia Water Protection Permit program is mandated by Virginia Code sections 62.1-44.15:20 and 62.1-44.15:21. Implementing regulations are found in 9 VAC 25-210 *et seq.*

5. Non-point Source Pollution Control Enforceable Policy.

5(a) Coordination. Guidance on preparation of an erosion and sediment control plan is available from the Department of Conservation and Recreation's regional office in Warrenton (telephone (540) 347-6420).

5(b) Applicable Rules. Applicable rules for DCR's Erosion and Sediment Control and Stormwater Management programs include, but are not limited to, the following:

- Virginia Erosion and Sediment Control Law, Virginia Code section 10.1-567
- Virginia Stormwater Management Law, Virginia Code sections 10.1-603.1 *et seq.*
- *Virginia Stormwater Management Program (VSMP) Permit Regulations*, 4 VAC 50 *et seq.*

6. Waste Management: Coordination and Applicable Rules.

6(a) Coordination.

6(a)(i) Petroleum Release Sites. With regard to petroleum release sites (see "Additional Environmental Considerations, item 4(c)(ii), above), the Army should consult DEQ's Northern Regional Office, Tanks Program (Cynthia Sale, telephone (703) 583-3830) for further information and the administrative records of the petroleum contamination cases which are in close proximity to any projects.

6(a)(ii) Asbestos-Containing Material and Lead-Based Paint. Questions relating to disposition of asbestos-containing materials and/or lead based paints in connection with any renovation or demolition project should be directed to DEQ's Northern Regional Office (Kathryn Persyzk, telephone (703) 583-3856).

6(a)(iii) Other Questions. For other questions or information needs, the Army may contact DEQ's Division of Land Protection and Revitalization (Steve Coe, telephone (804) 698-4029).

6(b) Applicable Rules. Some of the applicable laws and regulations governing waste management are as follows:

Federal:

- Resource Conservation and Recovery Act (RCRA), 42 U.S.C. sections 6901 *et seq.*;
- Applicable regulations contained in Title 40, *Code of Federal Regulations*;
- U.S. Department of Transportation, *Rules for Transportation of Hazardous Materials*, 49 *CFR* Part 107.

Virginia:

- Virginia Waste Management Act, Virginia Code sections 10.1-1400 *et seq.*;
- *Virginia Hazardous Waste Management Regulations*, 9 VAC 20-60;
For lead-based paint, see 9 VAC 20-60-261
- *Virginia Solid Waste management Regulations*, 9 VAC 20-80;
For asbestos-containing materials, see 9 VAC 20-80-640;

- *Virginia Regulations for the Transportation of Hazardous Materials*, 9 VAC 20-110.

7. Pollution Prevention. DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques and environmental management systems (EMS). For more information, contact DEQ's Office of Pollution Prevention (Sharon Baxter, telephone (804) 698-4344).

8. Transportation Planning. The Army may consult VDOT (Randy Hodgson, Regional Transportation Planner, telephone (703) 259-2753) as it proceeds with transportation changes associated with the JBM-HH RPMP and the expansion of Arlington Cemetery.

9. Energy Conservation Tips. Please contact the Department of Mines, Minerals, and Energy (David Spears, telephone (434) 951-6350) for additional information on energy conservation measures.

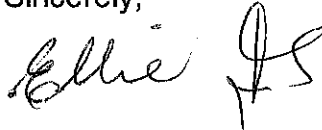
10. Sewage Collection and Treatment.

10(a) Coordination. The Army may contact DEQ's Northern Regional Office (Bryant Thomas, telephone (703) 583-3813) to ensure compliance with the Commonwealth's Sewage Collection and Treatment (SCAT) regulations, as necessary.

10(b) Applicable Rules. The SCAT requirements are implemented by the regulations at 9 VAC 25-790 *et seq.*

Thank you for the opportunity to review the Programmatic Environmental Assessment and Federal Consistency Determination. If you have any questions, please feel free to contact me (telephone (804) 698-4325 or e-mail ellie.iron@deq.virginia.gov) or Charles Ellis of this Office (telephone (804) 698-4195 or e-mail charles.ellis@deq.virginia.gov).

Sincerely,



Ellie L. Irons, Program Manager
Environmental Impact Review

enclosures

cc: Amy Ewing, DGIF
Keith R. Tignor, VDACS
Roberta Rhur, DCR
Diedre Forsgren, VDH
G. Stephen Coe, DEQ-DLPR

Kotur S. Narasimhan, DEQ-DAPC
Dell Cheatham, DEQ-NRO
Fred R. Hodgson, VDOT
Alfred Ray, VDOT
Tony Watkinson, VMRC
David Spears, DMME
Marc E. Holma, DHR
Buck Kline, DOF
G. Mark Gibb, NVRC
Barbara Donellan, Arlington County

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: John E. Fisher

DEQ - OEIA PROJECT NUMBER: 12-143F

RECEIVED
AUG 10 2012

PROJECT TYPE: ☐ STATE EA / EIR ☒ FEDERAL EA / EIS ☐ SCC

DEQ-Office of Environmental
Impact Review

X CONSISTENCY DETERMINATION

PROJECT TITLE: JOINT REAL PROPERTY MASTER PLAN, JOINT BASE MYER-HENDERSON
HALL

PROJECT SPONSOR: DOD / DEPARTMENT OF THE ARMY

PROJECT LOCATION: ☒ OZONE NONATTAINMENT AND
EMISSION CONTROL AREA FOR NOX & VOC

REGULATORY REQUIREMENTS MAY BE APPLICABLE TO: ☒ CONSTRUCTION
☐ OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

1. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E – STAGE I
2. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 F – STAGE II Vapor Recovery
3. ☐ 9 VAC 5-40-5490 et seq. – Asphalt Paving operations
4. ☒ 9 VAC 5-130 et seq. – Open Burning
5. ☒ 9 VAC 5-50-60 et seq. Fugitive Dust Emissions
6. ☐ 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to _____
7. ☐ 9 VAC 5-50-160 et seq. – Standards of Performance for Toxic Pollutants
8. ☐ 9 VAC 5-50-400 Subpart _____, Standards of Performance for New Stationary Sources, designates standards of performance for the _____
9. ☐ 9 VAC 5-80-1100 et seq. of the regulations – Permits for Stationary Sources
10. ☐ 9 VAC 5-80-1700 et seq. Of the regulations – Major or Modified Sources located in PSD areas. This rule may be applicable to the _____
11. ☐ 9 VAC 5-80-2000 et seq. of the regulations – New and modified sources located in non-attainment areas
12. ☐ 9 VAC 5-80-800 et seq. Of the regulations – Operating Permits and exemptions. This rule may be applicable to _____

COMMENTS SPECIFIC TO THE PROJECT:

All precautions are necessary to restrict the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x).



(Kotur S. Narasimhan)
Office of Air Data Analysis

DATE: August 10, 2012

Fisher, John (DEQ)

From: Cheatham, John (DEQ)
Sent: Tuesday, August 14, 2012 4:21 PM
To: Fisher, John (DEQ)
Subject: 12-143F: EA Joint Base Myer-Henderson Hall Master Plan

NRO comments regarding the Joint Base Real Property Master Plan for Joint Base Myer-Henderson Hall are as follows:

Land Protection Division - If any solid or hazardous waste is generated/encountered during construction, the facility should follow applicable federal, state, and county regulations for their disposal.

Air Compliance/Permitting - The project manager is reminded that during the construction phases that occur with this project; the project is subject to the Fugitive Dust/Fugitive Emissions Rule 9 VAC 5-50-60 through 9 VAC 5-50-120. In addition, should the project install fuel burning equipment (Boilers, Generators, Compressors, etc...), or any other air pollution emitting equipment, the project may be subject to 9 VAC 5-80, Article 6, Permits for New and Modified sources and as such the project manager should contact the Air Permit Manager DEQ-NRO prior to installation or construction, and operation, of fuel burning or other air pollution emitting equipment for a permitting determination.

Virginia Water Protection Permit (VWPP) Program - The project does not currently propose impacts to surface waters; however a VWP permit from DEQ may be required should impacts to surface waters be necessary. DEQ VWP staff recommends that the project avoid and minimize impacts to the surface waters to the maximum extent practicable. Upon receipt of a Joint Permit Application for the proposed surface waters impacts, DEQ VWP Permit staff will review the proposed project in accordance with the VWP permit program regulations and guidance. According to 9 VAC 25-210-60 B. 11.

Water Permitting/VPDES Program: The facility should maintain a valid MS4 permit to protect water quality in nearby stream, rivers and wetlands.

As specific projects implemented under this plan advance further review may be required. As indicated in the plan, specific projects should be initiated only after the environmental review has been completed and required permits are obtained.

Dell Cheatham

VWP Permit Writer - Virginia Department of Environmental Quality
Northern Regional Office - 13901 Crown Court, Woodbridge, VA 22193
703-583-3805



RECEIVED
AUG 29 2012
DEQ-Office of Environmental
Impact Review

MEMORANDUM

TO: John Fisher, Environmental Program Planner

FROM: Steve Coe, Division of Land Protection & Revitalization Review Coordinator

DATE: August 29, 2012

COPIES: Sanjay Thirunagari, Division of Land Protection & Revitalization Review Manager; EIR file

SUBJECT: Environmental Impact Statement: Project #12-143F. Joint Real Property Master Plan, Joint Base Myer-Henderson Hall, Arlington, VA 22211. DOD/Dept of the Army.

The Division of Land Protection & Revitalization (DLPR) has completed its review of the Environmental Review Request for the Joint Real Property Master Plan, Joint Base Myer-Henderson Hall (JBM-HH), Arlington, VA 22211.

The project scope: implementation of the Real Property Master Plan at Fort Myer, Fort McNair, and Henderson Hall through 2030 to provide JBM-HH with a planning framework, tools, and direction to enable the utilization and development of the land within the installations' boundaries in a manner that allows continued expansion of JBM-HH. JBM-HH prepared a Programmatic Environmental Assessment (PEA) in accordance with the National Environmental Policy Act (NEPA).

Solid and hazardous waste issues were generally addressed in the submittal. DLPR staff has reviewed the notice, conducted a cursory search of its waste databases, and has the following comments concerning possible waste issues associated with this proposed program:

DEQ's Virginia Geographical Information Systems (VEGIS) database can be accessed at the following web address: <http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS.aspx>. Through VEGIS's search options, you can identify by address or zip code the Solid Waste sites, VRP sites, and Petroleum Release sites in the area of the proposed project. Within the 22211 zip code or within 500 feet of the project site(s):

Solid waste sites – none

VRP sites – none

Petroleum release sites – Multiple petroleum contamination (PC) events were identified on the base (Status: all Closed), but as no specific on-site project is defined, a listing of the events was not prepared by staff. Please note that the DEQ's PC case files with the PC Case Nos., within a defined radius of the

proposed project(s), can be identified and these petroleum releases should be evaluated by the project engineer or manager to establish the exact location of the release and the nature and extent of the petroleum release and the potential to impact the proposed project. The facility representative should contact the DEQ's Northern Virginia Regional Office (Tanks Program) for further information and the administrative records of the PC cases which are in close proximity to any proposed projects.

FUD sites – none

CERCLA/FFR sites – one

VA8210020626 – Fort Myer, 204 Lee Avenue, Fort Myer, VA 22211. Status: Not NPL.

RCRA/HW sites – 3 identified in zip code 22211. The report author or project engineer should access this information on the DEQ website at

<http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/ReportsPublications/OriginalReports.aspx>, and clicking on the Hazardous Waste Facilities link. Search by zip code 22211.

- 1) VA8210020626 – Department of the Army HQ, Joint Base Myer-Henderson Hall, Lee Avenue, Fort Myer, VA 22211. Contact: James Stratton at 703-696-2013.
- 2) VAR000000786 – DOD Federal Office Bldg #2, Columbia Pike & Old Ridge, Arlington, VA 22211. Contact: Stephen P. Best at 703-692-4114.
- 3) VA6210020032 – U.S. Arlington National Cemetery, Arlington, VA 22211. Contact: Joseph Bunton at 703-697-4915.

With any demolition or construction project, it is anticipated that there will be a waste stream that must be managed properly. Waste management guidance is provided in the General Comments section below.

GENERAL COMMENTS

Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 et seq.; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-80); and Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 et seq., the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous materials, 49 CFR Parts 107.

Also, if an older structure will be demolished as part of this project, the structure should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP). If they are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-80-640 for ACM and 9VAC 20-60-261 for LBP must be followed. Questions may be directed to Kathryn Perszyk at DEQ's Northern Virginia office at 703-583-3856.

Finally, DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All hazardous wastes should be minimized.

If you have any questions or need further information, please contact Steve Coe at (804) 698-4029.

Douglas W. Domenech
Secretary of Natural Resources



David A. Johnson
Director

COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street
Richmond, Virginia 23219-2010
(804) 786-1712

RECEIVED
AUG 29 2012
DEQ-Office of Environmental
Impact Review

MEMORANDUM

DATE: August 29, 2012
TO: John Fisher, DEQ
FROM: Roberta Rhur, Environmental Impact Review Coordinator
SUBJECT: DEQ 12-143F, DOD- Dept of Army, Joint Real Property Master Plan, Joint Base Myer-Henderson Hall

Division of Natural Heritage

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Biotics documents the presence of natural heritage resources in the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Gladys Cason (804-367-0909 or Gladys.Cason@dgif.virginia.gov). This project is located within 2 miles of a documented occurrence of a state listed animal. Therefore, DCR recommends coordination with VDGIF, Virginia's regulatory authority for the management and

protection of this or these species to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

Division of Stormwater Management

Chesapeake Bay Local Assistance:

In Arlington County, the areas protected by the Act, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by the local government. RPAs include tidal wetlands, certain non-tidal wetlands and tidal shores. RPAs also include a 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. All areas of the County not included in the RPA are designated as RMAs.

Pursuant to the *Coastal Zone Management Act of 1972*, as amended, federal activities affecting Virginia's coastal resources or coastal uses must be consistent with Virginia's Coastal Zone Management Program (CZM Program) (see § 307(c)(1) of the Coastal Zone Management Act and 15 CFR Part 930, sub-part C of the *Federal Consistency Regulations*).

While Chesapeake Bay Preservation Areas (CBPA) are not locally designated on federal lands, this does not relieve federal agencies of their responsibility to be consistent with the provisions of the Regulations, § 9 VAC 10-20-10 et seq., as one of the enforceable programs of the CZM Program. Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the Regulations on lands analogous to locally designated CBPAs. Projects that include land disturbing activity must adhere to the general performance criteria, especially with respect to minimizing land disturbance (including access and staging areas), retaining indigenous vegetation and minimizing impervious cover. For land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992. Additionally, stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations*, § 4 VAC 50-60-10, shall be satisfied.

The 1998 *Federal Agencies' Chesapeake Ecosystem Unified Plan* (Plan) calls for the signatories of that Plan to cooperate with local and state governments in carrying out actions to comply with stormwater management regulations. The Plan further encourages low impact development practices that minimize the loss of natural areas and reduce impervious surfaces on federal facilities, as well as other best management practices to address stormwater management, and sediment and erosion control. In addition, the *Chesapeake 2000* agreement committed the government agencies to sound land use and stormwater quality controls. The signatories additionally committed the agencies to lead by example with respect to controlling nutrient, sediment and chemical contaminant runoff from government properties. In December 2001, the Executive Council of the Chesapeake Bay Program issued *Directive No. 01-1: Managing Storm Water on State, Federal and District-owned Lands and Facilities*, which includes specific commitments for agencies to lead by example with respect to stormwater control.

As referenced on page 45 of the Environmental Assessment, there are lands analogous to CBPAs at Fort Meyer. Under 3.3.11.2 (Alternative 2 – page 47 of the EA) it is projected that development "...would avoid RPAs on Fort Meyer and Henderson Hall; however, if encroachment into an RPA was found to be unavoidable, permits would be required." The proposed development activities associated with the Real Property Master Plan for Fort Meyer and Henderson Hall must avoid impacting lands analogous to RPAs in order to be consistent with the Regulations.

Ft. McNair is located in Washington D.C. The District of Columbia is not subject to the provisions of the Act or the Regulations. Therefore, there are no requirements under the Act or Regulations for development activities associated with the proposed project that will occur in that locality.

Provided adherence to the above requirements applicable to Arlington County, the proposed activity would be consistent with the *Chesapeake Bay Preservation Act* and Regulations.

Stormwater Management:

The applicant and their authorized agents conducting regulated land disturbing activities on private and public lands in the state must comply with the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R), Virginia Stormwater Management Law and Regulations including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, Federal Consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbance activities that result in the land-disturbance of equal to or greater than 2,500 for localities within Chesapeake Bay areas or equal to or greater than 10,000 feet for areas outside designated Chesapeake Bay areas would be regulated by VESCL&R. Accordingly, the applicant must prepare and implement erosion and sediment control (ESC) plan to ensure compliance with state law and regulations. The applicant is ultimately responsible for achieving project compliance through oversight of on site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL §10.1-567;].

The operator or owner of construction activities involving land disturbing activities equal to or greater than one acre are required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project specific stormwater pollution prevention plan (SWPPP). Construction activities requiring registration also includes the land-disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan of development will ultimately disturb equal to or greater than one acre. The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the Virginia Stormwater Management Program (VSMP) Permit Regulations. General information and registration forms for the General Permit are available on DCR's website at

http://www.dcr.virginia.gov/soil_and_water/index.shtml

[Reference: Virginia Stormwater Management Law Act §10.1-603.1 et seq.; VSMP Permit Regulations §4VAC-50 et seq.]

General Permit for Discharges of Stormwater from Construction Activities in CBPA:

The operator or owner of construction activities involving land disturbing activities equal to or greater than 2,500 square feet in areas designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act are required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the Virginia Stormwater Management Program (VSMP) Permit Regulations. General information and registration forms for the General Permit are available on DCR's website at

http://www.dcr.virginia.gov/soil_and_water/index.shtml

[Reference: Virginia Stormwater Management Law Act §10.1-603.1 et seq.; VSMP Permit Regulations §4VAC-50 et seq.]

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

Cc: Amy Ewing, VDGIF

Fisher, John (DEQ)

From: Hodgson, Fred R (VDOT)
Sent: Thursday, August 30, 2012 10:02 AM
To: Fisher, John (DEQ)
Cc: Ray, Alfred C. (VDOT); Srikanth, Kanathur N. (VDOT); Singh, Simrat (VDOT)
Subject: Joint Real Property Master Plan, Joint Base Myer-Henderson Hall Project # 12-143F

Sir: Below are our comments on the above cited project.

LAND DEVELOPMENT

I see about 1,000,000 SF of new development at Ft. Myer and some 300,000 SF of new development at Ft. McNair. The JRPMP indicates that the area is supported by a network of major roads. It also indicates that traffic studies will be required to ascertain the impacts of this new development on the transportation network. It goes on to state that turn lanes and some roadway widening may be necessary.

As this is a long range concept plan, it would appear logical that the details of such improvements would not be provided at this time. However, this amount of new development will generate a significant amount of traffic that will have an impact on the area roadways. As long as the traffic studies include both on-site and off-site roadways I trust that VDOT's interests will be considered and addressed.

TRAFFIC ENGINEERING

It appears that all transportation related items within this study pertain to internal circulation and internal access improvements. It does not appear that these improvements will constitute any change to VDOT/Arlington controlled roadways.

ENVIRONMENTAL

No comments.

STATEWIDE BRAC COORDINATOR

No comments

TRANSPORTATION PLANNING

Transportation Planning is aware of a number of studies/plans that are being proposed for this area of Arlington, including the proposed expansion of Arlington National Cemetery, the proposed relocation of Columbia Pike and the proposed Street Car project on Columbia Pike. Careful coordination and planning must occur to ensure that all these proposed activities do not negatively impact the VDOT facilities in this area.

Thank you for the opportunity to comment on this project. Please advise if you have any questions.

Randy Hodgson AICP | Regional Transportation Planner |
Virginia Department of Transportation | 4975 Alliance Drive, Fairfax, VA 22030 |
Phone 703-259-2753 | Randy.Hodgson@VDOT.Virginia.gov

If you cannot meet the deadline, please notify JOHN FISHER at 804/698-4339 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

REVIEW INSTRUCTIONS:

- A. Please review the document carefully. If the proposal has been reviewed earlier (i.e. if the document is a federal Final EIS or a state supplement), please consider whether your earlier comments have been adequately addressed.
- B. Prepare your agency's comments in a form which would be acceptable for responding directly to a project proponent agency.
- C. Use your agency stationery or the space below for your comments. **IF YOU USE THE SPACE BELOW, THE FORM MUST BE SIGNED AND DATED.**

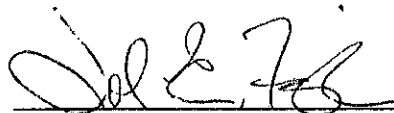
Please return your comments to:

MR. JOHN E. FISHER
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL IMPACT REVIEW
629 EAST MAIN STREET, SIXTH FLOOR
RICHMOND, VA 23219
FAX #804/698-4319
John.Fisher@deq.virginia.gov

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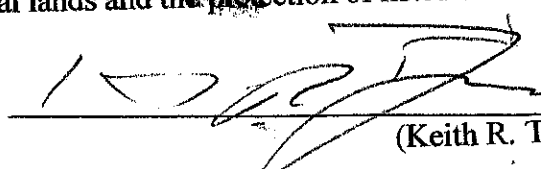
DEQ-Office of Environmental
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JOHN E. FISHER
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS

Based on information in our database, no T/E plant and insect species are documented to occur in the vicinity of the project area. At this time, we do not anticipate this project will have significant adverse affect as it relates to VDACS' responsibilities for the preservation of agricultural lands and the protection of listed endangered and threatened plant and insect species.

(signed)  (date) August 20, 2012
(title) _____
(agency) Endangered Species Coordinator

VDACS, Office of Plant Industry Services

PROJECT # 12-143F

1/12

From: Spears, David (DMME)
Sent: Wednesday, September 05, 2012 8:09 AM
To: Ellis, Charles (DEQ)
Subject: RE: comments on Army: Joint Real Property Master Plan, Joint Base Myer-Henderson Hall EA/FCD (DEQ 12-143F)

Charlie,
DMME will not be commenting.

David Spears

From: Ellis, Charles (DEQ)
Sent: Tuesday, September 04, 2012 5:28 PM
To: Tignor, Keith (VDACS); Watkinson, Tony (MRC); Spears, David (DMME); Aimee Vosper;
countymanager@arlingtonva.us
Subject: comments on Army: Joint Real Property Master Plan, Joint Base Myer-Henderson Hall EA/FCD (DEQ 12-143F)

Everybody – I need your comments on this environmental assessment/federal consistency determination when you get a chance. Thanks very much.

Charlie Ellis
DEQ-OEIR
9/4/12

Fisher, John (DEQ)

From: Ewing, Amy (DGIF)
Sent: Wednesday, August 29, 2012 1:30 PM
To: Fisher, John (DEQ)
Cc: Cason, Gladys (DGIF); nhreview (DCR); Bugas, Paul (DGIF); Cooper, Jeff (DGIF)
Subject: ESSLog# 33130_12-143F_Master Plan, Joint Base Myer Henderson Hall

We have reviewed the PEA for the Real Property Master Plan for Joint base Myer Henderson Hall, located in Arlington, VA.

According to our records, State Threatened bald eagles have been documented from the project area. Neither of the nests we currently document are located within 660-ft of the base boundaries. Therefore, we have determined that any construction projects located within the current joint boundaries is not likely to result in adverse impacts upon bald eagles. However, to ensure protection of this species, we recommend that any construction project be coordinated with us and the USFWS so that we may have the opportunity to provide protective recommendations in the case that a bald eagle nest is constructed on the base or within 660-ft of its boundaries.

Fourmile Run and the Potomac River have been designated Anadromous Fish Use Areas. Therefore, we recommend that any instream work in these waters and/or their tributaries necessary to implement the Master Plan adhere to a time of year restriction from February 15 through June 30 of any year. In addition, we recommend conducting any in-stream activities during low or no-flow conditions, using non-erodible cofferdams or turbidity curtains to isolate the construction area, blocking no more than 50% of the streamflow at any given time, stockpiling excavated material in a manner that prevents reentry into the stream, restoring original streambed and streambank contours, revegetating barren areas with native vegetation, and implementing strict erosion and sediment control measures. Due to future maintenance costs associated with culverts, and the loss of riparian and aquatic habitat, we prefer stream crossings to be constructed via clear-span bridges. However, if this is not possible, we recommend countersinking any culverts below the streambed at least 6 inches, or the use of bottomless culverts, to allow passage of aquatic organisms. We also recommend the installation of floodplain culverts to carry bankfull discharges.

This project is located within 2 miles of a documented occurrence of a state or federal threatened or endangered plant or insect species and/or other Natural Heritage coordination species. Therefore, we recommend coordination with VDCR-DNH regarding the protection of these resources.

To minimize overall impacts to wildlife and our natural resources, we offer the following comments about development activities: We recommend that the applicant avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable. Avoidance and minimization of impact may include relocating stream channels as opposed to filling or channelizing as well as using, and incorporating into the development plan, a natural stream channel design and wooded buffers. We recommend maintaining undisturbed naturally vegetated buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams. We recommend maintaining wooded lots to the fullest extent possible. We generally do not support proposals to mitigate wetland impacts through the construction of stormwater management ponds, nor do we support the creation of in-stream stormwater management ponds. We are willing to assist the applicant in developing a plan that includes open-space, wildlife habitat, and natural stream channels which retain their wooded buffers.

We recommend that the stormwater controls for this project be designed to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales. Bioretention areas (also called rain gardens) and grass swales are components of Low Impact Development (LID). They are designed to capture stormwater runoff as close to the source as possible and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes.

We recommend that all tree removal and ground clearing adhere to a time of year restriction protective of resident and migratory songbird nesting from March 15 through August 15 of any year.

We recommend adherence to erosion and sediment controls during ground disturbance.

Fisher, John (DEQ)

From: Forsgren, Diedre (VDH)
Sent: Friday, August 24, 2012 3:18 PM
To: Fisher, John (DEQ)
Subject: (12-143F) CD: Joint Real Property Master Plan, Joint Base Myer-Henderson Hall

DEQ Project #: 12-143F
Name: Joint Real Property Master Plan, Joint Base Myer-Henderson Hall
Sponsor: DOD/Department of the Army
Location: Arlington County

The Department of Health has reviewed the above captioned project and the information provided, and has no comment.

Diedre Forsgren

Office Services Specialist
VIRGINIA DEPARTMENT OF HEALTH
Office of Drinking Water, Room 622-A
109 Governor Street
Richmond, VA 23219
Phone: (804) 864-7241
email: diedre.forsgren@vdh.virginia.gov

Assuming adherence to all necessary erosion and sediment controls during ground disturbance, we find this project consistent with the Fisheries Management Section of the CZMA.

Thanks, Amy

Amy Ewing
Environmental Services Biologist
VDGIF - Headquarters
4010 West Broad St.
Richmond, VA 23230
804-367-2211
www.dgif.virginia.gov

Carl E. Garrison III
State Forester



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COMMONWEALTH of VIRGINIA

DEPARTMENT OF FORESTRY
900 Natural Resources Drive, Suite 800
Charlottesville VA 22903
434.977.6555 ~ Fax: 434.296.2369
www.dof.virginia.gov

August 16, 2012

TO: John E. Fisher, VDEQ
FROM: Buck Kline, VDOF
SUBJECT: Project DEQ #12-143F
Joint Real Property Master Plan, Joint Base Myer-Henderson Hall

Virginia Department of Forestry's (VDOF) Comments:

Based on the Draft Programmatic Environmental Assessment document found on a CD provided by DEQ, it appears this project will have a very minor impact on the forest resources of the Commonwealth. It appears there will be some impact to the urban tree canopy found on site during the construction phases. The environmental assessment document covers the mitigation planned for this impact regarding tree replacement.

Sincerely,

Buck Kline
Director Forestland Conservation Division
VA Department of Forestry
900 Natural Resources Drive, Suite 800
Charlottesville, VA 22903
434-220-9035

Fisher, John (DEQ)

From: Holma, Marc (DHR)
Sent: Tuesday, August 14, 2012 10:21 AM
To: Fisher, John (DEQ)
Subject: Fort Myer Real Property Master Plan (DEQ #12-143F; DHR #2012-1138)

John,

Fort Myer has already consulted with DHR on this project pursuant to Section 106 of the National Historic Preservation Act. Here is the Word version of the letter I wrote to the Army yesterday for you to use in DEQ's response.

Marc



Real Property
Master Plan at F...

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13 August 2012

Colonel R. Coffman
Department of the Army
Joint Base Myer-Henderson Hall
204 Lee Avenue
Fort Myer, Virginia 22211-1199

Re: Real Property Master Plan
Joint Base Myer-Henderson Hall, Virginia
DHR File No. 2012-1138

Dear Colonel Coffman:

The Department of Historic Resources (DHR) has received for our review and comment the Joint Base Myer-Henderson Hall Real Property Master Plan (RPMP). As you are aware, Joint Base Myer-Henderson Hall (JBM-HH) contains a National Historic Landmark historic district and abuts Arlington National Cemetery, two very significant historic properties. The DHR is currently working with Fort Belvoir in order to develop a Programmatic Agreement (PA) for its RPMP. We recommend that JBM-HH likewise develop a PA for its RPMP as the effects to historic properties due to the implementation of the plan cannot be fully determined at this time. The PA can serve not only to fulfill JBM-HH's responsibility to consider impacts to historic properties resulting from its RPMP, but may also include processes that will streamline consultation with DHR on the implementation of the plan.

In order to begin the PA development we recommend that JBM-HH identify those agencies and organizations that may wish to participate as consulting parties. At a minimum DHR suggests including Arlington County, Arlington National Cemetery, the National Park Service at Arlington House, the Advisory Council on Historic Preservation, and any federally recognized Indian tribe that claims that area of Virginia as its ancestral home. Please continue to consult with DHR on this matter.

If you have any questions about our comments, please call me at (804) 482-6090.

Sincerely,

Marc Holma, Architectural Historian
Office of Review and Compliance

CC: Mr. Michael Leventhal, Arlington County
Mr. Daniel Delahaye, Arlington National Cemetery
Mr. Matthew Virta, NPS
Ms Katherine Kerr, ACHP

Gomez, Elizabeth

From: Peet, Alexandra C <Alexandra.Peet@atkinsglobal.com>
Sent: Wednesday, October 10, 2012 2:20 PM
To: Lalire, Kristie S CIV (US)
Cc: Bowen, Myrtle CIV (US); Koeneke, Mary-Alice
Subject: RE: GWMP review of PEA (UNCLASSIFIED)

Kristie,
Thanks for checking on that. Good to close the loop.

Alexandra Peet, AICP, LEED AP
Senior Planner, Planning + Design

ATKINS

200 Daingerfield Road, Alexandria, Virginia, 22314 | Tel: +1 (703) 535 3008 ext. 4202120 | Fax: +1 (703) 535 1031 |
Cell: +1 (202) 487 8322 | Email: Alexandra.Peet@atkinsglobal.com | Web: www.atkinsglobal.com/northamerica
www.atkinsglobal.com

-----Original Message-----

From: Lalire, Kristie S CIV (US) [<mailto:kristie.s.lalire.civ@mail.mil>]
Sent: Wednesday, October 10, 2012 7:02 AM
To: Peet, Alexandra C
Cc: Bowen, Myrtle CIV (US)
Subject: FW: GWMP review of PEA (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

OK here are the comments from NPS.

Kristie

-----Original Message-----

From: Thomas_Sheffer@nps.gov [mailto:Thomas_Sheffer@nps.gov]
Sent: Tuesday, October 09, 2012 4:26 PM
To: Lalire, Kristie S CIV (US)
Subject: GWMP review of PEA

Hi Kristie,

Thanks again for your diligence in seeking comments on the Joint Base Myer-Henderson Hall Master Plan Draft Programmatic EA (PEA) from George Washington Memorial Parkway. At this point we don't have any comments, but we do appreciate the opportunity and look forward to being involved in the coordination of next steps with the PEA as well as in any tiered planning efforts.

You have likely already done so, but we would also like to ensure that given the regional nature of the PEA with inclusion of Fort McNair that future coordination for the project also include the NPS National Capital Region office (NCR) and the National Mall. A good contact at NCR to assist with this would be Joel Gorder, the regional environmental coordinator and lands liaison - Joel_Gorder@nps.gov.

Kind regards,

Thomas

Thomas Sheffer
Park Planner
George Washington Memorial Parkway
703.289.2512

Classification: UNCLASSIFIED

Caveats: NONE

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COMMONWEALTH of VIRGINIA

Department of Historic Resources

Douglas W. Domenech
Secretary of Natural Resources

2801 Kensington Avenue, Richmond, Virginia 23221

Kathleen S. Kilpatrick
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
TDD: (804) 367-2386
www.dhr.virginia.gov

13 August 2012

Colonel R. Coffman
Department of the Army
Joint Base Myer-Henderson Hall
204 Lee Avenue
Fort Myer, Virginia 22211-1199

Re: Real Property Master Plan
Joint Base Myer-Henderson Hall, Virginia
DHR File No. 2012-1138

Dear Colonel Coffman:

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In order to begin the PA development we recommend that JBM-HH identify those agencies and organizations that may wish to participate as consulting parties. At a minimum DHR suggests including Arlington County, Arlington National Cemetery, the National Park Service at Arlington House, the Advisory Council on Historic Preservation, and any federally recognized Indian tribe that claims that area of Virginia as its ancestral home. Please continue to consult with DHR on this matter.

If you have any questions about our comments, please call me at (804) 482-6090.

Sincerely,


Marc Holma, Architectural Historian
Office of Review and Compliance

Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6416
Fax: (804) 862-6196

Capital Region Office
2801 Kensington Office
Richmond, VA 23221
Tel: (804) 367-2323
Fax: (804) 367-2391

Tidewater Region Office
14415 Old Courthouse Way 2nd
Floor
Newport News, VA 23608
Tel: (757) 886-2807
Fax: (757) 886-2808

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5428
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
PO Box 519
Stephens City, VA 22655
Tel: (540) 868-7031
Fax: (540) 868-7033

CC: Mr. Michael Leventhal, Arlington County
Mr. Daniel Delahaye, Arlington National Cemetery
Mr. Matthew Virta, NPS
Ms Katherine Kerr, ACHP